



The objective is clear.

A clear **idea** of your financial future **lights** the way to a dignified retirement.

The objective is clear.

Gary Findlay  
*Executive Director*

Gary Irwin  
*Chief Finance Officer*

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\* Missouri State Employees' Plan



## Our Mission

*To exceed customer expectations by providing outstanding benefit services through professional plan administration and sound investment practices.*

## Core Values

### Quality

Strive to exceed the expectations of internal and external customers through innovation, competence, and teamwork. Seek to “do it right” the first time.

### Respect

Be sensitive to the needs of others, both within and outside the organization. Be courteous, considerate, responsive, and professional.

### Integrity

In all endeavors, act in an ethical, honest, and professional manner.

### Openness

Be willing to listen to, and share information with, others. Be receptive to new ideas. Be trusting of others.

### Accountability

Take ownership of and responsibility for actions and their results. Learn from mistakes. Control system risks and act to protect the security of member information and system assets.



A clear identity built on credibility, knowledge and trust.

## **INTRODUCTORY SECTION**

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## Professional Awards

### Certificate of Achievement for Excellence in Financial Reporting

MOSERS' *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2008, was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA). This was the twentieth consecutive year that MOSERS has received this prestigious award. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting.

### Public Pension Standards Award

MOSERS also received the Public Pension Coordinating Council (PPCC), Public Pension Standards Award in 2008, in recognition of meeting the professional standards for plan design and administration as set forth in the Public Pension Standards. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

# Letter of Transmittal



*Missouri State Employees' Retirement System*

**Mailing Address**

PO Box 209 • Jefferson City, MO 65102-0209

**Building Location**

907 Wildwood Drive • Jefferson City, MO

October 20, 2009

Missouri State Employees' Retirement System | Introductory Section

Fiscal Year 2009 |

The Board of Trustees  
Missouri State Employees' Retirement System  
907 Wildwood Drive  
Jefferson City, MO 65109

Dear Board Members:

It is my great pleasure to submit the 2009 Comprehensive Annual Financial Report (CAFR) of the Missouri State Employees' Retirement System (MOSERS). The report includes a wealth of information regarding the activities of MOSERS during the past fiscal year providing clear evidence that MOSERS is accomplishing the mission of exceeding customer expectations by providing outstanding benefit services through professional plan administration and sound investment practices. The investment market meltdown that started in fiscal year 2008, continued through much of fiscal year 2009. However, we began to see some improvement in market conditions during the last quarter of the fiscal year, providing evidence of the resiliency of the economy and the related ability of institutional investors to withstand major shocks.

## Report Contents and Structure

This CAFR is designed to satisfy the reporting requirements of state law as stipulated in Sections 104.480, 104.1006, and 105.661 of the Revised Statutes of Missouri (RSMo), as amended. Management has prepared the basic financial statements of the Missouri State Employees' Retirement System (MOSERS) and is responsible for the integrity and fairness of the information presented. Some amounts included in the financial statements and elsewhere may be based on estimates and judgments. These estimates and judgments were products of the best business practices available. The accounting policies followed in preparing the basic financial statements conform with U.S. generally accepted accounting principles. Financial information presented throughout the annual report is consistent with that which is displayed in the basic financial statements.

Ultimate responsibility for the basic financial statements and annual report rests with the board of trustees. The executive director and the rest of MOSERS' staff assist the board members in fulfilling their responsibilities. Systems of internal controls and supporting procedures are maintained to provide assurances that transactions are authorized, assets are safeguarded, and proper records are maintained. These controls include standards in hiring and training of employees, the establishment of an organizational structure, and the communication of policies and guidelines throughout the organization. Internal controls are reviewed through internal audit programs and all internal audit reports are submitted to the board of trustees.

The system's external auditor, Williams-Keepers LLC, conducted an independent audit of the basic financial statements in accordance with U.S. generally accepted auditing standards. This audit is described in the *Independent Auditor's Report* on page 23 of the *Financial Section*. Management has provided the external auditors with full and unrestricted access to MOSERS' staff to discuss their audit and related findings to facilitate independent validation of the integrity of the plan's financial reporting and the adequacy of internal controls.

The *Financial Section* also contains *Management's Discussion and Analysis* that serves as a narrative introduction to and overview of the financial statements. MOSERS is considered a component unit of the state of Missouri for financial reporting purposes and, as such, the financial statements in this report are also included in the *State of Missouri's Comprehensive Annual Financial Report*.

## Profile of MOSERS

MOSERS is an instrumentality of the state of Missouri that was established in 1957 by state law for the purpose of providing retirement benefits to most state employees. MOSERS provides for those retirement benefits through pension trust funds, in keeping with the fiduciary responsibilities of the board members and staff.

Subsequent to its creation, MOSERS was further assigned the task of providing most members of the retirement system with life and long-term disability insurance. MOSERS operates an internal service fund for the state of Missouri and contracts with insurance companies to provide those benefits through insured defined benefit plans. MOSERS maintains membership information on those eligible for the insurance coverage and collects and remits the premiums to the insurance company. Currently, the life and long-term disability insurance plans are insured through The Standard Insurance Company.

Effective September 1, 2007, a law change transferred responsibility for the administration of the Missouri State Employees' Deferred Compensation Program from the Missouri State Public Employees' Deferred Compensation Commission to the MOSERS Board of Trustees. MOSERS provides investment options to participants who retain responsibility for the investment of their individual accounts. Currently, the Missouri State Employees' Deferred Compensation Program is administered by third party administrator, ING. MOSERS operates the Missouri Deferred Compensation program as an internal service fund.

The MOSERS Board of Trustees annually approves the administrative expense budgets for MOSERS' operations and investment divisions. MOSERS' governance policy requires an exception report to the board of trustees by the executive director if expenses are expected to exceed budgeted amounts by 10% or if there are any unscheduled salary increases or staff expansions not included in the budget approved by the board before the beginning of the fiscal year.

## Succession Planning

Succession planning strategies were developed this past year with an emphasis on employee development and retention as well as ways in which institutional knowledge could be captured. The operations succession planning program was implemented July 1, 2009. This program includes a selection process for high potential employees who are interested in preparing for upper management positions. Thirty one percent of MOSERS' staff members are currently eligible to retire or will be eligible to retire in the next five years. The program is intended to capitalize on the experience our current staff already possess and prepare them for advancement to higher level positions.

## Staff Compensation and Benefits

Achievement of the MOSERS Performance Objectives is a critical part of the pay for performance plan for the operations section. In order to help keep staff on track, a new monitoring process was implemented this year which provides staff with quarterly updates that chart our progress towards achieving these goals. This process includes departmental meetings during which employees can discuss their progress and offer alternatives for improvements. It also serves as a reminder to staff of their individual responsibility in achieving our goals.

We participate in the NASRA/McLagen salary survey and the Human Resources Management Association of Greater Kansas City salary surveys to collect much of the information needed to evaluate the adequacy and appropriateness of the investment and operation staffs' pay. Based on the results of the most recent salary surveys, modest changes were recommended for FY10, which were implemented in July 2009.

Significant changes were made to the new employee orientation (NEO) process this year. The NEO is designed to introduce employees to the organization while also educating them on internal processes and services we provide to our members. The most significant change was the addition of staff presentations which include sessions on the executive director's vision for the organization, MOSERS' computer system, the benefits provided to employees, CEM benchmarking, our business continuity plan, the payroll process and accounts payable system, MOSERS' communications (including publications and the website), an overview of legal forms and records retention policies, the financial status of MOSERS and our role as administrator of the deferred compensation program, an overview of board governance, the internal auditor's role, the role of the actuary, and the board election process. New employees are required to attend these sessions through which they acquire a "big picture" perspective of the organization's current and long-term mission and goals.

## Risk Management Enhancements

Risk management is a critical component of our investment management program. With that in mind, several new investment reports were developed this year that segregate our individual equity portfolio position exposures. These reports assist in evaluating how the equity portfolio is allocated and thus how it is impacted by multiple risk factors which include country, sector, and market capitalization. Discerning the portfolio position relative to these factors allows risk taking in the areas with the greatest likelihood of success and assists in developing a more thorough understanding of expectations about the portfolio's performance given the behavior expected on the basis of the separate risk factors.

In the area of hedge funds, Blackstone Alternative Asset Management (BAAM) has been retained in the new role of hedge fund advisor. BAAM's due diligence reviews of our direct investment hedge funds combined with our staff's enhanced back office reviews of these same hedge funds has resulted in a very comprehensive risk management process. The investment staff devoted a significant amount of time and energy this year to reviewing the portfolio construction and manager selection process for making direct hedge fund investments. Direct hedge fund investing requires substantial reviews and an extensive due diligence process on the part of investment staff. This year we successfully transitioned more than \$500 million from fund-of-funds managers to direct investments, saving approximately \$4 million in asset management fees.

We continued to implement recommendations from the FishNet Security Audit. This year, 35 of the remaining 38 recommendations from last year were completed. Most of the changes involved programming enhancements and administrative techniques used behind the scenes to improve overall security. At present, we have satisfied 82 of the original 85 recommendations. The final three recommendations are related to member passwords and should be implemented by the end of 2009.

We completed monthly audits of payroll records of members who are within 12 months of retirement eligibility. This review allows us to detect any irregularities in pay in advance of retirement to ensure that benefits of new retirees are based on valid salary and service information.

In an effort to ensure that the incidence of benefit overpayment is minimized, we now perform monthly death audits rather than the semi-annual death audits performed previously.

We installed security cameras throughout the building to enhance physical security by providing a visual record of activity in critical areas.

### Deferred Compensation Plan Improvements

Since the time MOSERS assumed oversight responsibility for the State of Missouri Deferred Compensation Plan in September 2007, MOSERS' staff has worked diligently to review all aspects of the program with the objective being to identify ways in which the plan could be simplified and modernized for the benefit of all plan participants. Our review led to the conclusion that participants would benefit significantly from a smart, simple, savings solution consisting of a series of well diversified target date funds, a cash-like option, and a self-directed brokerage option. On April 9, 2009, the plan underwent a smooth transition that transferred participant assets in the old mutual fund options to the new Missouri Target Date Funds.

Despite all the evidence supportive of the plan design changes, participants who were reluctant to have their assets moved were given the choice of opting out of the automatic transition. Those who did opt out retained balances in their old mutual fund options and those assets were not transferred to target date funds. Assets in the ING Stable Income Fund and the Self-Directed Brokerage (SDB) account were not affected by the transition.

The new target date plan design has resulted in the following:

- **Lower overall fees.** With the transition of a majority of plan participants' mutual fund assets to the new target date funds, the overall plan investment management fee decreased by 0.33%. For those participants whose assets were transferred, this is an overall savings of more than \$2 million annually.

- **Enhanced control over management fees.** The new investment lineup, composed primarily of the new Missouri Target Date Funds and the ING Stable Income Fund, gives MOSERS more control over the investment management fees that are charged to participants. Because these investment options are custom products, MOSERS has direct oversight of and input into the fee level and how the funds are managed.
- **Increased diversification.** The majority of plan participants who had equity mutual fund exposure (84%) elected to transfer their assets from the previous mutual fund options to the new target date funds resulting in significantly increased diversification in their accounts.

## Web Enhancements

Beginning late last year, MOSERS' staff initiated a complete redesign of our main website. Armed with feedback from numerous online website surveys and the ongoing support of the internal MOSERS Website Focus Group, the newly designed site was launched in March, offering ease of navigation, a contemporary look, and a secure member login.

The website team created the new site using Sitecore's Content Management System. This new system allows multiple employees to add, edit, and approve content changes on MOSERS' website from within a web browser. It also regulates the website editing process so that all changes to the content travel through the proper administrative channels before going live to the site. These major enhancements lay the foundation for continued growth and development as MOSERS' online audience continues to grow.

We created a self-serve online feature for 1099-R replacements which provides our benefit recipients with 24/7 access and the ability to view and print information needed for tax return filings for the previous three years if they have lost or need additional copies of what was mailed to them.

Eleven short video segments were produced by staff to educate members about their benefits and to serve as a tool for new employee orientation. The videos are posted on the website and organized in a library format. A flash video format was used that requires no external software for viewers and also loads quickly in the same window to make viewing as convenient as possible.

## Technology Updates

We implemented server virtualization by migrating 15 of our production servers into a virtual environment. This dramatically improves the efficiency of our resources and applications by consolidating resource pools. It also reduces capital costs by increasing energy efficiency and requiring less hardware, which increases our server to admin ratio. The pair of physical VMware servers provides a backup for the virtual environment, ensuring high-availability and improved performance.

## Cost Effectiveness Measurement

Customer service is a critical element in MOSERS' performance objectives and is the driving force behind many of our service improvements. One of the ways we measure our overall performance is through the Cost Effectiveness Measurement (CEM) Benefit Administration Benchmarking Analysis. CEM evaluated 68 leading pension systems in the United States, Canada, Australia, the Netherlands and Denmark. Of the U.S. public pension plans, 13 were identified as our most relevant peer group based on membership size and system assets. The CEM survey rated MOSERS' service as the highest in our peer group with a total service

score of 89, relative to median scores of 78 and 73 for our peers and CEM's total universe, respectively. While we have ranked number one in customer service in our peer group before, this is the second time we have been ranked number one in customer service in CEM's total universe.

### Summary of Financial Information

The following schedule is a comparative summary of the pension trust funds' additions and deductions for the years ended June 30, 2009, and June 30, 2008.

	<b>Pension Trust Funds</b>	
	<b>Year Ended</b>	<b>Year Ended</b>
	<b>June 30, 2009</b>	<b>June 30, 2008</b>
Additions	\$ (1,240,503,569)	\$ 391,378,235
Deductions	(541,861,599)	(509,181,177)
Net change	\$ (1,782,365,168)	\$ (117,802,942)

The following schedule is a comparative summary of the revenues and expenses of the Internal Service Funds (insurance and deferred compensation activity) for the years ended June 30, 2009, and June 30, 2008.

	<b>Internal Service Funds</b>	
	<b>Year Ended</b>	<b>Year Ended</b>
	<b>June 30, 2009</b>	<b>June 30, 2008*</b>
Operating revenues	\$ 105,678,484	\$ 88,888,132
Operating expenses	(105,492,856)	(89,037,568)
Non-operating revenue	20,755	77,396
Net change	\$ 206,383	\$ (72,040)

\* Includes deferred compensation activity for ten months of the year ended June 30, 2008. The third party administration of individual accounts continues to be handled by an outside service provider paid from charges to the participants and a portion of revenue sharing.

Additional financial information can be found in the *Management Discussion and Analysis Report*, the Financial Statements, and schedules included in the *Financial Section* of this report.

### Investments

MOSERS' investments generated a return of -19.1% (net of fees) for the year ended June 30, 2009. The total fund return exceeded its policy benchmark of -19.7%. For the ninth straight year, MOSERS' investments have generated returns in excess of our benchmark and have done so with less volatility. This fiscal year's incremental return resulted in an additional \$56 million for the fund. Global equity (stock) markets were hit hard during the fiscal year resulting in losses of nearly 30%. The MOSERS public equity portfolio, bolstered by strong relative returns in international markets, outperformed the global equity benchmark by 4.6%. The alternatives portfolio finished the year -22.8%. This compared favorably to the -27% return generated by the composite alternatives benchmark. Value was added in alternatives, primarily as a result of decisions to avoid investments in real estate investment trusts throughout the year. The public debt portfolio generated a

return of -5.3% and underperformed its composite benchmark, which generated a return of 2.5%. Drivers of the underperformance in the public debt portfolio included losses from portable alpha and leveraged loans, which was offset to some degree by an overweight to treasuries relative to investment grade corporates and mortgages. The magnitude of losses that occurred in the second half of last year will shape how we invest for generations to come. The good news is that, in spite of those losses, MOSERS has earned almost \$2.4 billion over the last ten years. Of that \$2.4 billion, almost \$1.3 billion or 54% came from active management decisions made by the investment staff.

## Plan's Financial Condition

The funding objective of MOSERS' pension trust funds is to meet long-term benefit promises through contributions that remain approximately level as a percent of member payroll over decades of time. Historical information relating to progress in meeting this objective is presented on pages 51-56. During the year ended June 30, 2009, the funded ratio of the Missouri State Employees' Plan, which covers 103,953 participants, decreased from 85.9% to 83%, primarily as the result of unfavorable investment experience. Funding of the Judicial Plan, which covers 905 participants, began on July 1, 1998. During the year ended June 30, 2009, the funded ratio of the Judicial Plan increased from 20.6% to 22%, primarily as the result of the smaller accumulation of assets exposed to last year's market losses and the expectation that the funded ratio will increase 2-3% per year under normal circumstances. Additional information regarding the financial condition of the pension trust funds can be found in the *Actuarial Section* of this report.

## Awards

MOSERS received the following awards this year:

### *Certificate of Achievement for Excellence in Financial Reporting*

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MOSERS for its CAFR for the fiscal year ended June 30, 2008. This was the twentieth consecutive year that MOSERS has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. The CAFR must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

### *Public Pension Standards Award*

MOSERS received the Public Pension Coordinating Council (PPCC), Public Pension Standards Award in 2008, in recognition of meeting the professional standards for plan design and administration as set forth in the Public Pension Standards. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

### ***Blue Pencil/Gold Screen First Place Award***

MOSERS received the National Association of Government Communicators (NAGC) Blue Pencil/Gold Screen First Place Award for last year's "*Our Sole Purpose*" 2008 Comprehensive Annual Financial Report. This international award program recognizes superior government communication products and those who produce them.

These awards are gratifying to MOSERS' staff and increase MOSERS' stature as a leader among our peers.

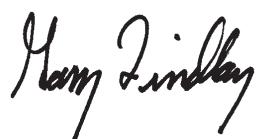
### **Conclusion**

This report is a product of the combined efforts of the MOSERS staff and advisors functioning under your leadership. It is intended to provide complete and reliable information that will facilitate the management decision making process, serve as a means for determining compliance with legal requirements, and allow for the evaluation of responsible stewardship of the funds of the system. As in the past, MOSERS received an unqualified opinion from our independent auditor on the financial statements included in this report. The opinion of the independent auditor can be found on page 23.

Copies of this report are provided to the Governor, State Auditor, the Joint Committee on Public Employee Retirement of the General Assembly, and all state agencies that form the link between MOSERS and its members. Their cooperation contributes significantly to the success of MOSERS. We hope all recipients of this report find it informative and useful.

I would like to take this opportunity to express my gratitude to you, the staff, the advisors, and other people who have worked so diligently to assure the continued successful operation of the system.

Respectfully submitted,



Gary Findlay  
Executive Director

# Letter From the Board Chair



*Missouri State Employees' Retirement System*

**Mailing Address**  
PO Box 209 • Jefferson City, MO 65102-0209

**Building Location**  
907 Wildwood Drive • Jefferson City, MO

October 20, 2009

Dear Members:

On behalf of the board of trustees, I am pleased to present the MOSERS *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2009. This report provides information on the financial status of your retirement system while also highlighting changes that occurred during the year.

The system is continuing to weather the market downturn caused by the credit crisis and collapse of the residential real estate market in 2008. Although MOSERS' investments generated a return of -19.1% (net of fees) for the fiscal year, our actual return outpaced the policy benchmark by 0.6%, which resulted in over \$56 million generated for the fund above what would have been earned had the decision been made to invest the entire portfolio passively to match our policy benchmark.

For the ninth straight year, MOSERS' investments have generated returns in excess of the benchmark and have done so with less volatility than the benchmark. The incremental reward from these results over nine years has been \$1.4 billion in investment earnings for MOSERS' coffers.

Your retirement system continues to achieve high marks in the delivery of customer service to our members. One of the ways we measure our overall performance is through CEM Benchmarking Inc.'s Pension Administration Benchmarking Analysis. CEM evaluated 68 leading pension systems, including systems in the U.S., Canada, Australia, the Netherlands and Denmark, and identified 13 U.S. public pension plans as our most relevant peer group based upon membership size and system assets. The CEM survey rated MOSERS' service delivery as the highest in our peer group with lower than average costs. In addition, MOSERS received the highest overall service delivery rating in the entire CEM universe.

On behalf of the board, I wish to thank John Russell and Todd Smith for their many contributions to the system. John and Todd served as both legislative and governor appointed members and helped bring stability to the board over the years during times of great change. David Steelman and Travis Morrison joined the board earlier this year as newly appointed members and we look forward to continuing to work with them.

In closing, you can be assured that MOSERS' staff strives to provide the expertise and professionalism required for excellence in our retirement system. I thank them for continuing to maintain a high level of commitment to serving our membership and we look forward to meeting your future needs. If you have any questions regarding this report or any other aspect of MOSERS, please contact us at MOSERS, P.O. Box 209, Jefferson City, MO 65102 or call 1-800-827-1063. You may also visit our website at [www.mosers.org](http://www.mosers.org).

Sincerely,

A handwritten signature in black ink that reads "Wayne L. Bill".

Wayne Bill, Chair  
Board of Trustees

Phone: (573) 632-6100 • (800) 827-1063  
MO Relay: 7-1-1 (Voice) • (800) 735-2966 (TTY)  
Email: [mosers@mosers.org](mailto:mosers@mosers.org) • Website: [www.mosers.org](http://www.mosers.org)

## Board of Trustees



Wayne Bill - Chair  
*Elected Active Member*



Don Martin - Vice Chair  
*Elected Retired Member*



Senator Jason Crowell  
*Senate Appointed Member*



Representative Bill Deeken  
*House Appointed Member*



Senator Timothy Green  
*Senate Appointed Member*



Representative Michael Parson  
*House Appointed Member*



Bob Patterson  
*Elected Active Member*



Commissioner of Administration  
Kelvin Simmons  
*Ex-Officio Member*



State Treasurer  
Clint Zweifel  
*Ex-Officio Member*



Travis Morrison  
*Governor Appointed Member*



David Steelman  
*Governor Appointed Member*

## Administrative Organization



Gary Findlay - *Executive Director*

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Greg Beck - *Chief Auditor*

Judy Delaney - *Legislative & Policy Coordinator*

Jake McMahon - *Chief Counsel*

Lisa Verslues - *Human Resources Coordinator*



Karen Stohlgren - *Deputy Executive Director  
Chief Operations Officer (COO)*

---

Stacy Gillmore - *Manager of Information Technology*

Gary Irwin - *Chief Finance Officer*

Lori Leeper - *Operations Project Coordinator/Board Secretary*

JoAnn Looten - *Manager of Records & Facility*

Krista Myer - *Manager of Communications*

Scott Simon - *Manager of Benefit Services*



Rick Dahl - *Deputy Executive Director  
Chief Investment Officer (CIO)*

---

Shannon Davidson - *Manager of Investment Risk & Performance*

Jim Mullen - *Manager of Public Debt*

Pat Neylon - *Manager of Public Equity*

Scott Peppard - *Manager of Alternative Investments*

Christine Rackers - *Manager of Investment Policy & Communications*

Cindy Rehmeier - *Manager of Deferred Compensation*

Tricia Scrivner - *Manager of Hedge Fund Investments*

# About MOSERS

## Purpose

MOSERS was established September 1, 1957, and is governed by laws of the state of Missouri.

MOSERS provides retirement, survivor, and disability benefits, as well as life insurance and deferred compensation plan management to its members.

MOSERS administers retirement benefits for most state employees, including members of the Missouri General Assembly, elected state officials, and judges. MOSERS is responsible for administering the law in accordance with the expressed intent of the Missouri General Assembly and bears a fiduciary obligation to the state employees who are its members and beneficiaries.

## Administration

State law provides that responsibility for the administration of MOSERS is vested in an 11-member board of trustees. The board is comprised of:

- Two members of the Senate appointed by the President Pro Tem of the Senate.
- Two members of the House of Representatives appointed by the Speaker of the House.
- Two members appointed by the Governor.
- The State Treasurer.
- The Commissioner of Administration.
- Three other system members: two active members elected by the active and terminated-vested members, and one retiree elected by the retired members.

The day-to-day management of MOSERS is delegated to the executive director who is appointed by the board and serves at its pleasure. The executive director acts as advisor to the board on all matters pertaining to the system, contracts for professional services, and employs the remaining staff needed to manage the system.

## Organization

The executive director, COO, and CIO are responsible for planning, organizing, and administering the operations of the system under the broad policy guidance and direction of the board. MOSERS' office is divided into eight administrative sections that perform specific functions for the system.

## Executive Services

The executive services team provides administrative support by assisting the executive director, COO, and CIO in the major legal, operational, and oversight functions of the retirement, benefit, and communication programs.

## Accounting

This section is responsible for all financial records of the programs administered by MOSERS, including the preparation of financial and statistical reports. Accounting performs the purchasing functions for MOSERS and interfaces with the investment custodian, Office of Administration accounting, various payroll and personnel departments, life insurance companies, actuaries, banks, and the IRS on all accounting-related issues.

## **Benefit Services**

Benefit services is responsible for contact with the members regarding the benefit programs directly administered by MOSERS, which include retirement, life insurance, and long-term disability.

## **Communications**

Communications is responsible for providing clearly written and attractively designed publications, and conducting educational seminars to inform members about benefit programs administered by MOSERS. Communications and the information technology section are jointly responsible for MOSERS' website.

## **Information Technology**

Information technology is responsible for establishing and maintaining the automated systems that support MOSERS' daily operations. MOSERS takes full advantage of technology to automate and integrate almost every aspect of the business. Key technologies include a document imaging system, a custom-built benefits management system and a computer-based telephone system.

## **Investments**

The primary function of the investment department is to provide internal investment management and consulting services to the board and the executive director. Other functions include hiring and terminating external investment managers, making strategic allocation decisions, analyzing the overall asset allocation, rebalancing the portfolio, and informing and advising the board and executive director on financial and economic developments which may affect the system. The investment staff also works with the asset consultant and the executive director in selecting and monitoring external money managers. Information regarding the investment professional service providers can be found in the *Investment Section*.

## **Records and Facility Management**

Records and facility management is responsible for establishing and maintaining all membership records including maintenance of the data on the electronic imaging system, balancing payroll deductions for insurance, and entering the payroll, service, and leave data into the system's computerized database. This section is also responsible for mail services, and general building maintenance.

## **Executive Support Staff**

Executive support staff provides clerical services.

# Outside Professional Services

## Actuary

### **Gabriel, Roeder, Smith & Co.**

*Actuaries and Consultants*

Norman L. Jones • Brad Armstrong • David Kausch  
Southfield, Michigan

## Auditor

### **Williams-Keepers, LLC**

*Certified Public Accountants & Consultants*

Heidi Chick • Amanda Gaither  
Columbia/Jefferson City, Missouri

## Governmental Consultants

### **Gamble & Schlemeier, LTD**

Bill Gamble • Jorgen Schlemeier  
Jefferson City, Missouri

### **West Consulting, Inc.**

Claire West  
Jefferson City, Missouri

## Legal Counsel

### **Perkins Coie, LLP**

*Attorneys at Law*  
Timberland Counsel  
Bob Maynard  
Boise, Idaho

### **Steptoe & Johnson, LLP**

*Attorneys at Law*  
Donald J. Wellington  
Los Angeles, California

### **Thompson Coburn, LLP**

*Attorneys at Law*  
General Counsel  
Allen Allred • Tom Litz  
St. Louis, Missouri

## Master Custodian

### **Bank of New York Mellon**

*Primary Custodian*  
Mark Sullivan • Eleanor Amidon  
Boston, Massachusetts

## Investment Management Consultants

### **Blackstone Alternative Asset Management, LP**

Tom Hill • Gideon Berger  
New York, New York

### **Summit Strategies Group**

*General Asset Consultant*  
Steve Holmes • Tom Pollihan  
St. Louis, Missouri

### **TimberLink, LLC**

*Timberland Consultant*  
Kate Robie • Gary Myers  
Atlanta, Georgia

## Risk Management Consultant

### **Charlesworth & Associates, LC**

Art Charlesworth • Bob Charlesworth  
Overland Park, Kansas

## Third-Party Administrators

### **ING**

*Deferred Compensation Plan*  
Jane Spatola  
Quincy, Massachusetts

### **The Standard Insurance Company**

*Disability and Life Insurance*  
Tom Trussell  
Overland Park, Kansas

### **TIAA-CREF**

*College & University Retirement Plan*  
Bernard Slack  
Denver, Colorado

## Securities Lending Advisor

### **Credit Suisse**

Dwight Skerritt  
New York, New York

**Investment Advisors****AQR Capital Management, LLC**

Clifford Asness • David Kabiller • Gregor Andrade  
Greenwich, Connecticut

**Actis Capital, LLP**

Paul Fletcher • Alistair Mackintosh  
Jonathan Bond • Michael Wotherspoon  
London, England

**Aetos Capital, LLC**

Anne Casscells • Michael Klein • Jonathan Bishop  
Menlo Park, California  
New York, New York

**Alinda Capital Partners, LLC**

Chris Beale • John Laxmi • Joanne Rios  
New York, New York

**Alliance Bernstein**

Raymond Decker  
New York, New York

**Axiom Asia Private Capital**

Edmond Ng • Chihtung Lam  
Singapore, Singapore

**Barclays Global Investors**

Russ Koesterich • Trey Heiskell  
San Francisco, California

**Bayview Asset Management, LLC**

David Ertel • John Fischer  
Coral Gables, Florida

**BlackRock Financial Management, Inc.**

Rob Capaldi • James Keenan  
New York, New York

**The Blackstone Group**

Gary Sumers • Ken Whitney  
New York, New York

**Blackstone Alternative Asset Management, LP**

Tom Hill • Hal Lindquist  
Gideon Berger • Mimi Gammill  
New York, New York

**Blackstone Distressed Debt Associates, LP**

John Dionne  
New York, New York

**Blakeney Management**

Matthew Eyre  
London, England

**Bridgepoint Capital Limited**

William Jackson • John Barber  
London, England

**Bridgewater Associates, Inc.**

Ray Dalio • Tom Bachner  
Westport, Connecticut

**Bush O'Donnell Investment Advisors, Inc.**

Jim O'Donnell • Mark Reed  
St. Louis, Missouri

**The Campbell Group, LLC**

John Gilleland • Julie Lawrence • Angie Davis  
Portland, Oregon

**CarVal Investors, LLC**

Tim Clark • Matt Hanson  
Minnetonka, Minnesota

**Catterton Partners**

J. Michael Chu • Scott Dahnke • John Scerbo  
Greenwich, Connecticut

**DDJ Capital Management, LLC**

Mike Yeomans • David Breazzano  
Waltham, Massachusetts

**DG Capital Management**

C. Garrett Williams • Manu Daftary  
Boston, Massachusetts

**Davidson Kempner Capital Management, LLC**

Tom Kempner • Eric Epstein • Andrea Stiga  
New York, New York

**Development Partners International**

Miles Morland • Runa Alam • Rose Fletcher  
London, England

**Eminence Capital**

Stephen Maresco  
New York, New York

**Eton Park Capital Management**

Eric Mindich • Katherine Davisson  
New York, New York

**Farallon Capital Management, LLC**

Tom Steyer • Kate Gorman  
San Francisco, California

**Fortress Investment Group**

Andrew Dempsey • Douglas Greenig  
New York, New York

**GFI Energy Ventures, LLC**

Larry Gilson  
Los Angeles, California

**Global Forest Partners, LP**

Peter Mertz • Heidi Kearns  
West Lebanon, New Hampshire

**Grantham, Mayo,****Van Otterloo & Co, LLC**

Tom Smith • Arjun Divecha  
Boston, Massachusetts  
Berkeley, California

**HBK Investments, LP**

Rich Booth • McKinley Wier  
Dallas, Texas

**Harvest Fund Advisors, LLC**

Eric Conklin • David Martinelli • Anthony Merhige  
Wayne, Pennsylvania

**Highside Capital Management**

Lee Hobson • Molly Pieroni  
Dallas, Texas

**JLL Partners**

Paul Levy • Brian Wade • Michael Schwartz  
New York, New York

**King Street Capital Management, LP**

Brian Higgins • Ana Johnson  
New York, New York

**Legg Mason Capital Management, Inc.**

Bill Miller • Jane Trust  
Baltimore, Maryland

**Leuthold Weeden Capital Management**

John Mueller • Eric Bjorgen  
Minneapolis, Minnesota

**MHR Fund Management, LLC**

Mark Rachesky • Hal Goldstein  
New York, New York

**Mastholm Asset Management, LLC**

Thomas Garr • Theodore Tyson  
Seattle, Washington

**Merit Energy Company**

Bill Gayden • Meghan Cuddihy  
Dallas, Texas

**Moon Capital Management, LP**

John Moon • Emily Coughlin  
New York, New York

**Morant Wright Management Limited**

Stephen Morant • Alasdair McKerrell  
London, England

**New Mountain Capital, LLC**

Steven Klinsky • Michael Flaherman • Adam Weinstein  
New York, New York

**Nippon Value Investors**

Yoshihiko Ito • Christopher Cowie  
Tokyo, Japan  
London, England

**NISA Investment Advisors, LLC**

Bill Marshall • Robert Krebs  
St. Louis, Missouri

**Oaktree Capital Management, LP**

Howard Marks • Bruce Karsh • John Brady  
Greg Brandner • Nazar Sharif  
Los Angeles, California  
London, England  
New York, New York

**Pacific Alternative Asset Management Company**

Jane Buchan • Kevin Williams  
Irvine, California

**Parish Capital Advisors, LLP**

James Mason • Jeremy Chason  
Chapel Hill, North Carolina

**Perry Capital, LLC**

Richard Perry • Emily Snider  
New York, New York

**Relational Investors, LLC**

Ralph Whitworth • Sandi Christian  
San Diego, California

## Investment Advisors Continued

### **Resource Management Service, LLC**

Phillip Woods • Craig Blair  
Birmingham, Alabama

### **Silchester International Investors**

Christopher Cowie • Stephen Butt  
New York, New York  
London, England

### **Silver Creek Capital Management, LLC**

Eric Dillon • Bryan Weeks  
Seattle, Washington

### **Silver Lake Partners**

Alan Austin • David Roux • Susannah Carrier  
Menlo Park, California

### **Silver Point Capital Fund, LP**

Bob O'Shea • Ed Mule • Eve Teich  
Greenwich, Connecticut

### **TPG-Axon Capital Management, LP**

Dinakar Singh • Beth Kojima  
New York, New York

### **Trust Company of the West**

Blair Thomas • Judy Hirsch  
Jeffrey Gundlach • Phil Barrach  
Los Angeles, California

### **Veritas Capital Partners**

Robert McKeon • Ramzi Musallam  
New York, New York

### **Viking Global Investors, LP**

Andreas Halvorsen • Rebecca Ginzburg  
New York, New York

### **Wellington Management**

Karl Banktel • Shanna O'Reilly  
Boston, Massachusetts



A clear **FOCUS** on financial information to ensure full disclosure.

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# Independent Auditor's Report



CERTIFIED PUBLIC ACCOUNTANTS & CONSULTANTS

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The Board of Trustees  
Missouri State Employees' Retirement System

We have audited the accompanying basic financial statements of the Missouri State Employees' Retirement System (MOSERS), a component unit of the state of Missouri, as of and for the year ended June 30, 2009, as listed in the accompanying table of contents. We have also audited the financial statements of MOSERS' internal service funds as of and for the year ended June 30, 2009, as displayed in MOSERS' basic financial statements. These financial statements are the responsibility of MOSERS' management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with U.S. generally accepted auditing standards. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of MOSERS, as well as MOSERS' internal service funds, as of June 30, 2009, and the respective changes in financial position and cash flows, where applicable, for the year then ended, in conformity with U.S. generally accepted accounting principles.

The management discussion and analysis and the schedules of funding progress and employer contributions as listed in the table of contents are not a required part of the basic financial statements but are supplementary information required by U.S. generally accepted accounting principles. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information for the years ended June 30, 2009, 2008, 2007, and 2006. However, we did not audit the information and express no opinion on it. Limited procedures were applied by other auditors to the required supplementary information for the years ended June 30, 2005, and 2004.

Our audits were made for the purpose of forming an opinion on the financial statements taken as a whole. The additional financial information as listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements of MOSERS. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

The *Introductory, Investment, Actuarial, and Statistical Sections* have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

*Williams Keepers LLC*

October 20, 2009

# Management Discussion and Analysis

## Required Supplementary Information

The basic financial statements contained in this section of the *Comprehensive Annual Financial Report* consist of:

The **Statements of Plan Net Assets** which report the pension trust funds assets, liabilities, and resulting net assets where Assets – Liabilities = Net Assets available at the end of the fiscal year. It is a snapshot of the financial position of the pension trust funds at that specific point in time.

The **Statements of Changes in Plan Net Assets** which summarize the pension fund's financial transactions that have occurred during the fiscal year where Additions – Deductions = Net Change in Net Assets. It supports the change that has occurred to the prior year's net asset value on the *Statement of Plan Net Assets*.

The **Balance Sheet** of the internal service funds is similar to the *Statements of Plan Net Assets* in that it is also a snapshot of the financial position of the internal service funds where Assets = Liabilities + Net Assets.

The **Statement of Revenues, Expenses, and Changes in Net Assets** of the internal service funds is similar to the *Statement of Changes in Plan Net Assets* in that it also reports a summary of the financial activity that occurred over the period of the fiscal year where Revenues – Expenses = Net Revenue and supports the change to the prior year's net assets.

The **Statement of Cash Flows** of the internal service funds reports the financial transactions of the fiscal year of the internal service funds on a cash basis. It is similar to the *Statement of Revenues, Expenses and Changes in Net Assets*; however, the focus of this statement is on the change to cash balances with accrued income and expense items eliminated.

The **Notes to the Financial Statements** are an integral part of the above financial statements and include additional information not readily evident in the statements themselves.

This required supplementary *Management Discussion and Analysis* information and the required supplementary information and other schedules following the *Notes to the Financial Statements* provide detailed historical information considered useful in evaluating the condition of the plans administered by MOSERS.

Pages 25-29 contain summary comparative statements of MOSERS' pension trust funds and internal service funds and provide additional analysis of the changes noted on those schedules.

## Pension Trust Funds

During the fiscal year ended June 30, 2009, the global economies continued to suffer one of the worst bear markets since the great depression. Although MOSERS has a well diversified fund, it is not immune to such widespread market declines experienced over the past two years.

MOSERS' overall pension fund financial condition deteriorated for the second year in a row during the fiscal year ended June 30, 2009, returning MOSERS' fund balance to that of approximately the same level of the fiscal year ended June 30, 2005. Pension fund net assets decreased by \$1,782,365,168 during the fiscal year, primarily as result of a reduction in the investment values and their associated income. The investments of the pension trust funds generated a -19.1% return for the year, down from the prior year's return of 1.6%. The MSEP plans experienced a decrease in its funded status from 85.9% to 83% and the Judicial Plan experienced an increase in its funded status from 20.6% to 22%. The MOSERS Board of Trustees adopted a temporary change in the valuation asset market corridor from +/- 20% to +/- 30% for the June 30, 2009 valuation. This was done to reflect the unusual market condition experienced over the last two fiscal years. The corridor is scheduled to return to the +/- 20% value over the next two annual valuations.

The internal service funds net assets increased by \$206,383. The goal of the internal service funds is to maintain the funds at a level that enables it to meet its obligations of contracting the premiums for the life and long-term disability benefits for state employees; maintain the membership data necessary to track the premiums due from the state and its employees and payable to the insurance carrier, manage the state employees deferred compensation program, and collect and remit the state and employee contributions to the deferred compensation third party administrator. This was the second year of MOSERS' administration of the state's deferred compensation plan and through negotiations with the third party administrator, MOSERS was able to secure an increase in revenue sharing in amounts sufficient to cover MOSERS' administration costs of the plan.

The following schedules present comparative summary financial statements of the pension trust funds and internal service funds for FY09 and FY08. Following each schedule is a brief summary of the significant changes noted in those schedules.

### Pension Trust Funds

Summary Comparative Statements of Plan Net Assets

	As of June 30, 2009	As of June 30, 2008	Amount of Change	Percentage Change
Cash and short-term investments	\$ 624,390,801	\$ 721,501,696	\$ (97,110,895)	(13.46)%
Receivables	50,537,236	99,212,664	(48,675,428)	(49.06)
Investments	5,644,811,509	7,356,225,040	(1,711,413,531)	(23.26)
Invested securities lending collateral	385,276,913	990,447,379	(605,170,466)	(61.10)
Capital assets	3,313,056	3,328,380	(15,324)	(0.46)
Other assets	85,515	83,927	1,588	1.89
Total assets	6,708,415,030	9,170,799,086	(2,462,384,056)	(26.85)
Administrative expense payables	1,606,040	1,320,282	285,758	21.64
Investment expense payables	0	35,094,903	(35,094,903)	(100.00)
Investment purchase payables	23,837,745	98,784,467	(74,946,722)	(75.87)
Securities lending collateral	441,487,337	1,006,614,299	(565,126,962)	(56.14)
Other liabilities	12,477,661	17,613,720	(5,136,059)	(29.16)
Total liabilities	479,408,783	1,159,427,671	(680,018,888)	(58.65)
Net assets	\$6,229,006,247	\$8,011,371,415	\$(-1,782,365,168)	(22.25)%

### **Summary Comparative Statements of Plan Net Assets Analysis**

The largest components of the net assets are the investments of the pension trust funds, securities lending collateral, the investment of those collateral funds, and cash and cash equivalents.

The decrease in the fair value of investments is primarily attributable to the unfavorable market conditions experienced during FY09, as evidenced by a decrease in MOSERS' total investment return from 1.6% last year to -19.1% this year. MOSERS experienced increases in the market values of its securities during the last quarter of the fiscal year; however, it was not sufficient enough to offset the losses incurred earlier in the year. Detailed information regarding MOSERS' investment portfolio is included in the *Investment Section* of this report.

The decrease in securities lending collateral is primarily attributable to the unfavorable market conditions of the past year. As a result, MOSERS has experienced a decline in the demand for lendable securities and has also intentionally reduced the size of the lending portfolio in order to reduce the risk exposure in this area. In addition, since approximately 75% of the collateral received has been invested in asset-backed and corporate bonds, the value of the invested collateral has declined below the level of the liability MOSERS has incurred from the securities lending program. If all the loans were terminated on June 30, 2009, MOSERS would have had to make up the \$56 million difference between the invested collateral of \$385 million and the collateral liability of \$441 million.

Cash and cash equivalents were down slightly, partly as a result of the slow down in investing activity during the year.

#### **Summary Comparative Statements of Changes in Plan Net Assets**

	<b>Year Ended June 30, 2009</b>	<b>Year Ended June 30, 2008</b>	<b>Amount of Change</b>	<b>Percentage Change</b>
Contributions	\$ 283,094,964	\$ 279,108,667	\$ 3,986,297	1.43%
Investment income (loss) - investing activities	(1,530,053,487)	103,249,161	(1,633,302,648)	(1581.90)
Investment income - securities lending activities	5,829,390	8,442,627	(2,613,237)	(30.95)
Miscellaneous income	625,564	577,780	47,784	8.27
Total additions (reductions)	(1,240,503,569)	391,378,235	(1,631,881,804)	(416.96)
Benefits	534,698,643	501,911,976	32,786,667	6.53
Service transfers and refunds	0	251,443	(251,443)	(100.00)
Administrative expenses	7,162,956	7,017,758	145,198	2.07
Total deductions	541,861,599	509,181,177	32,680,422	6.42
Net decrease	(1,782,365,168)	(117,802,942)	(1,664,562,226)	1413.01
Net assets beginning of year	8,011,371,415	8,129,174,357	(117,802,942)	(1.45)
Net assets end of year	\$ 6,229,006,247	\$8,011,371,415	\$(1,782,365,168)	(22.25)%

#### **Summary Comparative Statements of Changes in Plan Net Assets Analysis**

The slight increase in contributions received is primarily attributable to an increase in state payroll for the year of approximately 4% and a decrease in the contribution rate for the general employees group from 12.84% to 12.53%.

The decrease in investment income in FY09 over FY08 is attributable to the generally unfavorable market conditions experienced by the investments of the fund, a continuation of the trend started in FY08. The decrease in securities lending income is primarily attributed to a decrease in demand for lendable securities and an intentional effort to reduce MOSERS' risk exposure in the securities lending arena. Additional information regarding the investments and securities lending activity can be found in the *Investment Section* of this report.

The total benefit payments increase is due to a net increase in the number of benefit recipients plus cost-of-living adjustments provided to existing benefit recipients. Detailed schedules of these changes can be found on pages 120-125 of the *Actuarial Section* of this report.

Service transfers are dependent on the number of members electing to transfer their service out of MOSERS and the cost of that service transferred. Refunds are dependent on the number of members MOSERS is able to locate that have any contributions remaining in the system. During FY09, there were no members electing to transfer their service out of MOSERS and no members were located that have contributions remaining in the system.

## Internal Service Funds

### Summary Comparative Balance Sheets

	<b>As of June 30, 2009</b>	<b>As of June 30, 2008</b>	<b>Amount of Change</b>	<b>Percentage Change</b>
Cash	\$ 0	\$ 38	\$ (38)	(100.00)%
Premiums receivable	1,033,692	1,008,772	24,920	2.47
Accounts receivable - other	124,488	25,000	99,488	397.95
Investments	2,642,046	2,343,991	298,055	12.72
Total assets	<u>3,800,226</u>	<u>3,377,801</u>	<u>422,425</u>	<u>12.51</u>
Premiums payable	2,878,996	2,800,812	78,184	2.79
Other liabilities	389,125	251,267	137,858	54.87
Total liabilities	<u>3,268,121</u>	<u>3,052,079</u>	<u>216,042</u>	<u>7.08</u>
Unrestricted net assets	532,105	325,722	206,383	63.36
Total liabilities and net assets	<u>\$3,800,226</u>	<u>\$3,377,801</u>	<u>\$422,425</u>	<u>12.51%</u>

### ***Summary Comparative Balance Sheets Analysis***

The increase in premiums receivable is attributable to normal fluctuations in the month end balance of life and long-term disability premiums receivable during the year, which are dependent on the number of members participating and amount of their coverage.

The accounts receivable-other increase is due to a change in the revenue sharing arrangement with the deferred compensation third party administrator. To cover the administration costs of the program, each quarter MOSERS receives a flat amount of \$25,000 plus, beginning this year, 0.07% annualized of the ING Stable Income fund. The fourth quarter ING Stable Income fund revenue sharing payment of \$124,488 remained receivable at fiscal year end.

The increase in investments is attributable to normal fluctuations in the investment in overnight repurchase agreements of the funds held pending transmission to the life and long-term disability insurance company and to the deferred compensation administrator.

The increase in premiums payable is attributable to normal fluctuations in the month end balances of premiums payable for the year, similar to the fluctuations of the premiums receivable.

Other liabilities increased primarily as a result of the increase in reimbursements due to the pension trust funds for the internal service fund's portion of shared expenses which had not been transferred at year end.

## Summary Comparative Statements of Revenues, Expenses, and Changes in Net Assets

	<b>Year Ended June 30, 2009</b>	<b>Year Ended June 30, 2008</b>	<b>Amount of Change</b>	<b>Percentage Change</b>
Premium receipts	\$ 28,990,057	\$ 27,957,666	\$ 1,032,391	3.69%
Deferred compensation receipts	75,661,047	60,393,973	15,267,074	25.28
Miscellaneous income	1,027,380	536,493	490,887	91.50
Total operating revenue	<u>105,678,484</u>	<u>88,888,132</u>	<u>16,790,352</u>	<u>18.89</u>
 Premium disbursements	 28,968,981	 27,927,265	 1,041,716	 3.73
Deferred compensation disbursements	75,683,218	60,371,802	15,311,416	25.36
Premium refunds	21,076	30,401	(9,325)	(30.67)
Administrative expenses	819,581	708,100	111,481	15.74
Total operating expenses	<u>105,492,856</u>	<u>89,037,568</u>	<u>16,455,288</u>	<u>18.48</u>
 Net operating income (loss)	 185,628	 (149,436)	 335,064	 (224.22)
Investment income	20,755	77,396	(56,641)	(73.18)
Net revenues over expenses	<u>206,383</u>	<u>(72,040)</u>	<u>278,423</u>	<u>(386.48)</u>
Net assets beginning of year	325,722	397,762	(72,040)	(18.11)
Net assets end of year	<u>\$ 532,105</u>	<u>\$ 325,722</u>	<u>\$ 206,383</u>	<u>63.36%</u>

Financial Section

Fiscal Year 2009

Missouri State Employees' Retirement System

### ***Summary Comparative Statements of Revenues, Expenses, and Changes in Net Assets Analysis***

Premium receipts and premium disbursements increased slightly due to an increase in the overall state payroll and normal fluctuations in the amount of optional life insurance coverage selected by state employees.

The increase in deferred compensation receipts and disbursements is primarily attributable to the fact that FY08 represented ten months of activity following the transition of the administration of the plan from the State of Missouri's Deferred Compensation Commission to MOSERS, while FY09 reflects the first full year of activity.

Miscellaneous income increased as a result of the negotiated increase in the revenue sharing arrangement with the deferred compensation third party administrator.

Premium refunds decreased slightly as a result of a decrease in the amount of payroll processing errors by state entities.

Administrative expenses increased primarily as a result of the increase in expenses needed to make improvements to the administration of the state's deferred compensation plan.

Investment income decreased primarily due to an overall decrease in the 90-day Treasury bill rates during the fiscal year.

## Summary Comparative Statements of Cash Flows

	<b>Year Ended June 30, 2009</b>	<b>Year Ended June 30, 2008</b>	<b>Amount of Change</b>	<b>Percentage Change</b>
Cash flows from operating activities	\$ 274,449	\$(123,763)	\$ 398,212	(321.75)%
Cash flows from non-capital financing activities	2,810	2,519	291	11.55
Cash flows from investing activities	(277,297)	118,202	(395,499)	(334.60)
Net change in cash	(38)	(3,042)	3,004	
Cash balances beginning of year	38	3,080	(3,042)	
Cash balances end of year	<b>\$ 0</b>	<b>\$ 38</b>	<b>\$ (38)</b>	

### ***Summary Comparative Statements of Cash Flows Analysis***

The increase in cash flows from operating activities is primarily attributable to an increase in cash payments received from employers and members over that of FY08.

The increase in cash flows from non-capital financing activities is primarily attributable to an increase in the amount of life and long-term disability refund checks that remained outstanding at year end.

The decrease in cash flows from investing activities is primarily attributable to a decrease in the cash flows from net purchase and maturities of overnight repurchase agreements of \$338,861 plus a decrease in the investment income received of \$56,641.

### ***Request for Information***

This financial report is designed to provide a general overview of the system's finances for all those with interest in the system's finances. Questions concerning any of the information provided in this report or request for additional information should be addressed to MOSERS at P.O. Box 209, Jefferson City, MO 65102.

# Statements of Plan Net Assets

Pension Trust Funds - As of June 30, 2009

Missouri State Employees' Retirement System

	<b>MSEP</b>	<b>Judicial Plan</b>	<b>Total</b>
<b>Assets</b>			
Cash and short-term investments	\$ 617,899,001	\$ 6,491,800	\$ 624,390,801
<b>Receivables</b>			
State contributions	9,857,296	1,272,186	11,129,482
Investment income	28,831,971	302,916	29,134,887
Investment sales	9,824,696	103,221	9,927,917
Other	341,364	3,586	344,950
Total receivables	<b>48,855,327</b>	<b>1,681,909</b>	<b>50,537,236</b>
<b>Investments at fair value</b>			
U.S. treasury securities	807,224,861	8,480,905	815,705,766
Corporate bonds	155,221,341	1,630,794	156,852,135
Convertible bonds	4,284,132	45,010	4,329,142
Government bonds & gov't mortgage-backed securities	63,868,235	671,016	64,539,251
Common stock	584,717,905	6,143,192	590,861,097
Limited partnerships	2,843,526,882	29,874,800	2,873,401,682
Bank loans	166,688,192	1,751,268	168,439,460
Real estate investment trust	1,200,105	12,609	1,212,714
Collateralized mortgage obligations	107,621,225	1,130,695	108,751,920
Foreign currency	6,119,459	64,293	6,183,752
International equities	830,898,201	8,729,623	839,627,824
U.S. dollar-denominated international corporate bonds	14,751,780	154,986	14,906,766
Total investments	<b>5,586,122,318</b>	<b>58,689,191</b>	<b>5,644,811,509</b>
Invested securities lending collateral	381,271,183	4,005,730	385,276,913
<b>Capital assets</b>			
Land	264,507	2,779	267,286
Building and building improvements	3,512,564	36,904	3,549,468
Furniture, fixtures, and equipment	1,746,027	18,344	1,764,371
Total capital assets	5,523,098	58,027	5,581,125
Accumulated depreciation	(2,244,488)	(23,581)	(2,268,069)
Net capital assets	3,278,610	34,446	3,313,056
Prepaid expenses and other	84,626	889	85,515
Total assets	<b>6,637,511,065</b>	<b>70,903,965</b>	<b>6,708,415,030</b>
<b>Liabilities</b>			
Administrative expenses payable	1,589,342	16,698	1,606,040
Investment purchases payable	23,589,904	247,841	23,837,745
Securities lending collateral	436,897,187	4,590,150	441,487,337
Investment incentive fees payable	11,734,635	123,287	11,857,922
Employee vacation and overtime liability	613,296	6,443	619,739
Total liabilities	<b>474,424,364</b>	<b>4,984,419</b>	<b>479,408,783</b>
Net assets held in trust for pension benefits	<b>\$6,163,086,701</b>	<b>\$65,919,546</b>	<b>\$6,229,006,247</b>

See accompanying *Notes to the Financial Statements*.

# Statements of Changes in Plan Net Assets

Pension Trust Funds - Year Ended June 30, 2009

	MSEP	Judicial Plan	Total
<b>Additions</b>			
<u>Contributions</u>			
State contributions	\$ 252,105,008	\$ 27,725,882	\$ 279,830,890
Member purchases of service credit	3,235,999	0	3,235,999
Service transfer contributions	28,075	0	28,075
Total contributions	<u>255,369,082</u>	<u>27,725,882</u>	<u>283,094,964</u>
 <u>Investment income</u>			
<i>From investing activities:</i>			
Net depreciation in fair value of investments	(1,184,220,607)	(12,441,716)	(1,196,662,323)
Interest including swap transactions	(375,217,513)	(3,942,128)	(379,159,641)
Dividends	90,162,825	947,273	91,110,098
Other	5,126,010	53,855	5,179,865
Total investing activities loss	<u>(1,464,149,285)</u>	<u>(15,382,716)</u>	<u>(1,479,532,001)</u>
Investing activities expenses:			
Management fees	(45,376,879)	(476,741)	(45,853,620)
Custody fees	(680,140)	(7,146)	(687,286)
Consultant fees	(828,036)	(8,700)	(836,736)
Performance measurement fees	(186,732)	(1,962)	(188,694)
Internal investment activity expenses	(2,924,425)	(30,725)	(2,955,150)
Total investing activities expenses	<u>(49,996,212)</u>	<u>(525,274)</u>	<u>(50,521,486)</u>
Net loss from investing activities	<u>(1,514,145,497)</u>	<u>(15,907,990)</u>	<u>(1,530,053,487)</u>
 <i>From securities lending activities:</i>			
Securities lending income	13,204,682	138,732	13,343,414
Securities lending expenses:			
Borrower rebates	(6,272,350)	(65,899)	(6,338,249)
Management fees	(1,163,550)	(12,225)	(1,175,775)
Total securities lending activities expenses	<u>(7,435,900)</u>	<u>(78,124)</u>	<u>(7,514,024)</u>
Net income from securities lending activities	<u>5,768,782</u>	<u>60,608</u>	<u>5,829,390</u>
Total net investment loss	<u>(1,508,376,715)</u>	<u>(15,847,382)</u>	<u>(1,524,224,097)</u>
 Miscellaneous income	619,060	6,504	625,564
Net additions (reductions)	<u>(1,252,388,573)</u>	<u>11,885,004</u>	<u>(1,240,503,569)</u>
 <b>Deductions</b>			
Benefits			
BackDROP & lump sum benefits	456,496,809	23,232,088	479,728,897
Administrative expenses	54,969,746	0	54,969,746
Total deductions	<u>7,088,483</u>	<u>74,473</u>	<u>7,162,956</u>
Net decrease	<u>518,555,038</u>	<u>23,306,561</u>	<u>541,861,599</u>
	<u>(1,770,943,611)</u>	<u>(11,421,557)</u>	<u>(1,782,365,168)</u>
 Net assets held in trust for pension benefits:			
Beginning of year	7,934,030,312	77,341,103	8,011,371,415
End of year	<u>\$6,163,086,701</u>	<u>\$ 65,919,546</u>	<u>\$6,229,006,247</u>

See accompanying *Notes to the Financial Statements*.

## Balance Sheets

Internal Service Funds - As of June 30, 2009

| Financial Section

| Missouri State Employees' Retirement System

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### Assets

	<b>Life &amp; LTD</b>	<b>Deferred Compensation</b>	<b>Total</b>
Premiums receivable	\$1,033,692	\$ 0	\$1,033,692
Accounts receivable - other	0	124,488	124,488
Due to/(due from)	(360,979)	360,979	0
Investments at fair value	2,599,551	42,495	2,642,046
Total assets	<b>\$3,272,264</b>	<b>\$527,962</b>	<b>\$3,800,226</b>

### Liabilities and net assets

#### *Liabilities*

Premiums payable	\$2,878,996	\$ 0	\$2,878,996
Checks outstanding net of deposits	2,810	0	2,810
Other	186,672	199,643	386,315
Total liabilities	<b>3,068,478</b>	<b>199,643</b>	<b>3,268,121</b>
<i>Unrestricted net assets</i>	<b>203,786</b>	<b>328,319</b>	<b>532,105</b>
Total liabilities and net assets	<b>\$3,272,264</b>	<b>\$527,962</b>	<b>\$3,800,226</b>

See accompanying *Notes to the Financial Statements*.

### Life & LTD      Deferred Compensation      Total

# Statements of Revenues, Expenses, and Changes in Plan Net Assets

Internal Service Funds - Year Ended June 30, 2009

## **Operating revenues**

Premium receipts  
Deferred compensation receipts  
Miscellaneous income  
Total operating revenues

	<b>Life &amp; LTD</b>	<b>Deferred Compensation</b>	<b>Total</b>
Premium receipts	\$28,990,057	\$ 0	\$ 28,990,057
Deferred compensation receipts	0	75,661,047	75,661,047
Miscellaneous income	436,500	590,880	1,027,380
Total operating revenues	29,426,557	76,251,927	105,678,484

## **Operating expenses**

Premium disbursements  
Deferred compensation disbursements  
Premium refunds  
Administrative expenses  
Total operating expenses  
Operating revenues over (under) operating expenses

Premium disbursements	28,968,981	0	28,968,981
Deferred compensation disbursements	0	75,683,218	75,683,218
Premium refunds	21,076	0	21,076
Administrative expenses	605,106	214,475	819,581
Total operating expenses	29,595,163	75,897,693	105,492,856
Operating revenues over (under) operating expenses	(168,606)	354,234	185,628

## **Non-operating revenues**

Investment income  
Net revenues over (under) expenses  
Net assets July 1, 2008  
Net assets June 30, 2009

Investment income	20,624	131	20,755
Net revenues over (under) expenses	(147,982)	354,365	206,383
Net assets July 1, 2008	351,768	(26,046)	325,722
Net assets June 30, 2009	\$ 203,786	\$ 328,319	\$ 532,105

See accompanying *Notes to the Financial Statements*.

# Statements of Cash Flows

Internal Service Funds - Year Ended June 30, 2009

Fiscal Year 2009 | Financial Section

Missouri State Employees' Retirement System

## Cash flows from operating activities

Cash received from employers and members	\$ 29,401,981	\$ 76,152,439	\$ 105,554,420
Miscellaneous income	0	12	12
Payments to outside carriers	(28,890,797)	(75,640,724)	(104,531,521)
Refunds of premiums to members	(21,076)	0	(21,076)
Cash payments to employees for services	(298,598)	(3,181)	(301,779)
Cash payments to other suppliers of goods and services	(194,661)	(230,946)	(425,607)
Net cash provided (used) by operating activities	(3,151)	277,600	274,449

## Cash flows from noncapital financing activities

Implicit funding of checks outstanding net of deposits	2,810	0	2,810
Net cash used in noncapital financing activities	2,810	0	2,810

## Cash flows from investing activities

Purchase of investment securities	(13,301,905)	(585,905,151)	(599,207,056)
Proceeds from sale and maturities of investment securities	13,281,622	585,627,382	598,909,004
Cash received from investment income	20,624	131	20,755
Net cash provided (used) by investing activities	341	(277,638)	(277,297)
Net increase (decrease) in cash	0	(38)	(38)
Cash balances June 30, 2008	0	38	38
Cash balances June 30, 2009	\$ 0	\$ 0	\$ 0

## Reconciliation of operating revenues over (under) operating expenses to net cash provided by operating activities

Operating revenues over (under) operating expenses

*Adjustments to reconcile operating revenues over (under)*

*operating expenses to net cash provided (used) by operating activities*

Change in assets and liabilities:

Increase in operational accounts receivable

Increase in operational accounts payable

Total adjustments

Net cash provided (used) by operating activities

	<b>Life &amp; LTD</b>	<b>Deferred Compensation</b>	<b>Total</b>
Operating revenues over (under) operating expenses	\$ (168,606)	\$ 354,234	\$ 185,628
<i>Adjustments to reconcile operating revenues over (under)</i>			
<i>operating expenses to net cash provided (used) by operating activities</i>			
Change in assets and liabilities:			
Increase in operational accounts receivable	(282,408)	(202,982)	(485,390)
Increase in operational accounts payable	447,863	126,348	574,211
Total adjustments	165,455	(76,634)	88,821
Net cash provided (used) by operating activities	\$ (3,151)	\$ 277,600	\$ 274,449

See accompanying *Notes to the Financial Statements*.

# Notes to the Financial Statements

Year Ended June 30, 2009

## (1) Plan Descriptions and Contribution Information

### ***Missouri State Employees' Plan (MSEP)***

The MSEP is a single-employer, public employee retirement plan with two benefit structures known as the MSEP (closed plan) and MSEP 2000 (new plan), which are administered by the Missouri State Employees' Retirement System (MOSERS) in accordance with Sections 104.010 and 104.312 to 104.1215 of the Revised Statutes of Missouri (RSMo). As established under Section 104.320, RSMo, MOSERS is a body corporate and an instrumentality of the state. In the system are vested the powers and duties specified in Sections 104.010 and 104.312 to 104.1215, RSMo and such other powers as may be necessary or proper to enable it, its officers, employees, and agents to carry out fully and effectively all the purposes of Sections 104.010 and 104.312 to 104.1215, RSMo.

Responsibility for the operation and administration of the system is vested in the MOSERS Board of Trustees. Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the MSEP is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as a pension trust fund.

Generally, all full-time state employees hired before July 2000, who were not covered under another state-sponsored retirement plan are eligible for membership in the MSEP (closed plan). All full-time state employees hired after July 2000 are eligible for membership in the MSEP 2000 (new plan). MOSERS participates as an employer in the MSEP.

#### **As of the June 30, 2009 valuation, membership in the MSEP consisted of the following:**

Retirees and beneficiaries currently receiving benefits	31,637
Terminated employees entitled to, but not yet receiving benefits	17,259
<b>Active</b>	
Vested	36,891
Nonvested	18,166
	<u>55,057</u>
<b>Total membership</b>	
	<u>103,953</u>

The MSEP provides retirement, survivor, and disability benefits.

#### ***MSEP (closed plan)***

General state employees are fully vested for benefits upon receiving 5 years of credited service. Under the MSEP (closed plan), general employees may retire with full benefits upon the earliest of attaining:

- Age 65 and active with 4 years of service;
- Age 65 with 5 years of service;
- Age 60 with 15 years of service; or
- Age 48 with age and service equaling 80 or more - "Rule of 80."

General employees may retire early at age 55 with at least 10 years of service with reduced benefits.

The base benefit in the general employee plan is equal to 1.6% multiplied by the final average pay multiplied by years of credited service.

For members hired prior to August 28, 1997, cost-of-living adjustments (COLAs) are provided annually based on 80% of the change in the consumer price index (CPI) with a minimum rate of 4% and maximum rate of 5% until the cumulative amount of COLAs equals 65% of the original benefit. Thereafter, the 4% minimum rate is eliminated. For members hired on or after August 28, 1997, COLAs are provided annually based on 80% of the change in the CPI up to a maximum rate of 5%.

Qualified, terminated-vested members may make a one-time election to receive the present value of their benefit in a lump sum payment. To qualify, a member must have terminated with at least 5, but less than 10 years of service, be less than age 60, and have a benefit present value of less than \$10,000.

Contributions are determined through annual actuarial valuations. Administration of the MSEP is financed through contributions to this plan from the state of Missouri and investment earnings.

#### ***MSEP 2000 (new plan)***

General state employees are fully vested for benefits upon receiving 5 years of credited service. Under the MSEP 2000 (new plan), general employees may retire with full benefits upon the earliest of attaining:

- Age 62 with 5 years of service; or
- Age 48 with age and service equaling 80 or more - "Rule of 80."

General employees may retire early at age 57 with at least 5 years of service with reduced benefits.

The base benefit in the general employee plan is equal to 1.7% multiplied by final average pay multiplied by years of credited service. For those retiring under "Rule of 80," an additional temporary benefit equivalent to 0.8% multiplied by final average pay multiplied by years of credited service is payable until age 62.

COLAs are provided annually based on 80% of the change in the CPI up to a maximum rate of 5%.

Contributions are determined through annual actuarial valuations. Administration of the MSEP 2000 (new plan) is financed through contributions to this plan from the state of Missouri and investment earnings.

The state of Missouri is required to make all contributions to the MSEP. Prior to September 1, 1972, contributions by members were required. Accumulated employee contributions made prior to that time, plus interest through August 28, 1997, are refundable to the member or designated beneficiaries upon request.

For a more detailed summary of benefits for general employees and a description of benefits available to legislators and elected officials under the MSEP (closed plan) and the MSEP 2000 (new plan), refer to the *Summary of Plan Provisions* contained in the *Actuarial Section* of this report.

#### ***Judicial Plan***

The Judicial Plan is a single-employer, public employee retirement plan administered in accordance with Sections 476.445 to 476.690, RSMo. Responsibility for the operation and administration of the Judicial Plan is vested in the MOSERS Board of Trustees. Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the Judicial Plan is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as a pension trust fund.

Judges and commissioners of the supreme court or the court of appeals, judges of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, justices of the peace, or commissioners or deputy commissioners of the circuit court appointed after February 29, 1972, commissioners of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo, commissioners of the drug court pursuant to Section 478.466, RSMo, or commissioners of the family court are eligible for membership in the Judicial Plan.

**As of the June 30, 2009 valuation, membership in the Judicial Plan consisted of the following:**

Retirees and beneficiaries currently receiving benefits	463
Terminated employees entitled to, but not yet receiving benefits	45
<b>Active</b>	
Vested	397
Nonvested	0
	<hr/>
<b>Total membership</b>	<b>905</b>
	<hr/> <hr/>

The Judicial Plan provides retirement, survivor, and disability benefits. Members are immediately eligible for benefits.

Under the Judicial Plan, members may retire with full benefits upon the earliest of attaining:

- Age 62 with 12 years of service;
- Age 60 with 15 years of service; or
- Age 55 with 20 years of service.

Employees may retire early at age 62 with less than 12 years of service or age 60 with less than 15 years of service with a reduced benefit that is based upon years of service relative to 12 or 15 years.

In the Judicial Plan, the base benefit for members with 12 or more years of service is equivalent to 50% of compensation on the highest court served.

For members hired prior to August 28, 1997, COLAs are provided annually based on 80% of the change in the CPI with a minimum rate of 4% and maximum rate of 5% until the cumulative amount of COLAs equals 65% of the original benefit. Thereafter, the 4% minimum rate is eliminated. For members hired on or after August 28, 1997, COLAs are provided annually based on 80% of the change in the CPI up to a maximum rate of 5%.

Qualified, terminated-vested members may make a one-time election to receive the present value of their benefit in a lump sum payment. To qualify, a member must have terminated with at least 5, but less than 10 years of service, be less than age 60, and have a benefit present value of less than \$10,000.

Funding of the Judicial Plan on an actuarial basis began on July 1, 1998. Contributions are determined through annual actuarial valuations. The state of Missouri is required to make all contributions to the Judicial Plan.

Administration of the Judicial Plan is financed through contributions to this plan from the state of Missouri and investment earnings.

For a more detailed summary of benefits for members of the Judicial Plan, refer to the *Summary of Plan Provisions* contained in the *Actuarial Section* of this report.

Multi-year trend information regarding whether the actuarial value of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits can be found in the required supplementary information following the *Notes to the Financial Statements*.

Schedule of Funded Status

							<b>UAAL</b>
	<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) Entry Age (b)</b>	<b>Unfunded AAL (UAAL) (b-a)</b>	<b>Percent Funded (a/b)</b>	<b>Annual Covered Payroll (c)</b>	<b>Percentage of Covered Payroll ((b-a)/c)</b>
MSEP	6/30/2009	\$7,876,079,342	\$9,494,806,715	\$1,618,727,373	83.0%	\$2,002,402,087	80.8%
Judges	6/30/2009	81,337,881	369,106,841	287,768,960	22.0	45,505,512	632.4
					<b>MSEP</b>	<b>Judicial Plan</b>	
Valuation date					6/30/2009	6/30/2009	
Actuarial cost method					Entry age	Entry age	
Amortization method					Level percent	Level percent	
Remaining amortization period					30 years open	30 years open	
Asset valuation method					5-year smoothed market +/- 30% market corridor	5-year smoothed market +/- 30% market corridor	
Actuarial assumptions:							
Investment rate of return					8.5%	8.5%	
Projected salary increases					4.3-7.5%	4.0-5.6%	
COLAs					4%*	4%**	
Price inflation					3.2%	3.2%	

\* On a compound basis, 4% for the first 12 years, 3.1% for the 13th year, and 2.56% per year thereafter.

\*\* On a compound basis, 4% for the first 12 years, 3.067% for the 13th year, and 2.56% per year thereafter.

### **Missouri State Insured Defined Benefit Insurance Plan**

The Missouri State Insured Defined Benefit Insurance Plan is accounted for as an internal service fund of the state of Missouri and is administered by MOSERS. It provides basic life insurance in an amount equal to one times annual salary while actively employed (with a \$15,000 minimum) to:

- eligible members of the MSEP and MSEP 2000 (except employees of the Missouri Department of Conservation and certain state colleges and universities).
- members of the Judicial Plan and certain members of the Public School Retirement System.

The plan also provides duty-related death benefits, optional life insurance for active employees and retirees who are eligible for basic coverage, and a long-term disability plan for certain eligible members.

For a more detailed description of insurance benefits, refer to the *Summary of Plan Provisions - Life Insurance Plans* in the *Actuarial Section* of this report.

Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the Missouri State Insured Defined Benefit Insurance Plan is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as an internal service fund. Administration of the Missouri State Insured Defined Benefit Insurance Plan is financed through contributions to this plan from the state of Missouri.

### ***State of Missouri's Deferred Compensation Plan***

The state of Missouri's Deferred Compensation Plan is accounted for as an internal service fund and is administered by MOSERS.

Effective September 1, 2007, legislation transferred responsibility for the administration of the state of Missouri's Deferred Compensation Plan from the State of Missouri's Deferred Compensation Commission to the MOSERS Board of Trustees. The commission was dissolved upon transfer. In order to assist in the transition, two deferred compensation commissioners (the chair of the commission and one House appointed member) remain for a period of time as ex-officio members on the MOSERS board for issues related to the deferred compensation program. This change was initiated by a legislative member of the commission based on the belief that plan participants would benefit from MOSERS' investment and administrative expertise in monitoring the program.

The third party administration of individual accounts and the investment products available are handled by outside providers and paid from charges to the participants and revenue sharing arrangements. Investment of deferred compensation funds are managed by participants who choose from available options. MOSERS' role is to provide investment options to the participants. MOSERS participates in the revenue sharing arrangement with the third party administrator to cover MOSERS' administrative costs.

	<b>Employee Charges</b>	<b>Revenue Sharing</b>	<b>Total</b>
ING	\$2,084,849	\$3,224,067	\$5,308,916
MOSERS	0	590,880	590,880
<b>Total</b>	<b>\$2,084,849</b>	<b>\$3,814,947</b>	<b>\$5,899,796</b>

## **(2) Summary of Significant Accounting Policies and Plan Asset Matters**

### ***Basis of Accounting***

The financial statements of the MSEP, the Judicial Plan, the Missouri State Insured Defined Benefit Insurance Plan and state of Missouri's Deferred Compensation Plan were prepared using the accrual basis of accounting.

Contributions are due to MOSERS when employee services have been performed and paid. Contributions are recognized as revenues when due pursuant to statutory requirements. Benefits and refunds are recognized when due and payable and expenses are recorded when the corresponding liabilities are incurred, regardless of when contributions are received or payment is made. The direct method of reporting cash flows is used.

### ***Estimates***

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of net assets held in trust for pension benefits at June 30, 2009. Actual results could differ from those estimates.

### ***Method Used to Value Investments***

Section 104.440, RSMo allows the board of trustees to invest the trust fund assets in accordance with the prudent person rule. Investments of the pension trust funds and the internal service fund are reported on the basis of fair market value. The schedule on page 46 provides a summary of the fair values of the investments as reported on the *Statements of Plan Net Assets* of the pension trust funds and balance sheet of the internal service funds. Fair values for the equity real estate investments are based on appraisals. Fair values of the limited partnership investments are based on valuations of the underlying companies of the limited partnerships as reported by the general partner. Certain limited partnerships reflect values on a quarter lag basis due to the nature of those investments and the time it takes to value them. Fair value of the commingled funds are determined based on the underlying asset values. The remaining assets are primarily valued by the investment custodian using the last trade price information supplied by various pricing data vendors.

## Cash

Custodial credit risk for cash deposits and investments is the risk that, in the event of a bank failure, the system and plans' deposits may not be returned to them. The board adopted the following policy on June 18, 2009:

The executive director shall require that banks managing demand deposit accounts for any retirement plan associated with MOSERS (MOSERS' defined benefit plan and the deferred compensation plan/state incentive compensation plan) to hold, at minimum, collateral security in either MOSERS' name or the state of Missouri Deferred Compensation Plan and in an amount equal to or more than the amount on deposit that exceeds the Federal Deposit Insurance Corporation (FDIC) insured amount. The types of collateral security shall be included on a list maintained by the State Treasurer's office in accordance with Section 30.270 RSMo, but in no case may a bank pledge collateral that does not specifically allow MOSERS to release the collateral or pledge collateral that represents securities of the pledging banks.

Cash balances represent both demand deposit accounts held at the bank and investment cash on deposit with the investment custodian. To maximize investment income, the float caused by outstanding checks is invested, thus causing a possible negative book balance. Negative book balances are reflected in the liabilities section of the balance sheet of the internal service fund and included in the cash and short-term investments on the *Statements of Plan Net Assets* of the pension trust funds. The table below is a schedule of the aggregate book and bank balances of all cash accounts. In addition to the FDIC insurance coverage on the accounts of MOSERS, Central Trust Bank pledged the following securities to MOSERS on June 30, 2009, as collateral for overnight repurchase agreements:

- \$2,329,799 Small Business Administration Pool #507605 maturity date 11/25/2017 (fair value \$1,187,396)
- \$2,000,000 Small Business Administration Pool #521624 maturity date 07/25/2019 (fair value \$2,000,000)
- \$2,000,000 Small Business Administration Pool #507371 maturity date 08/25/2024 (fair value \$1,221,630)
- \$1,000,000 Small Business Administration Pool #508347 maturity date 02/25/2033 (fair value \$935,023)

Cash Balances		
	Book	Bank/Investment Custodian
Pension Trust Funds - investment custodian	\$24,631,405	\$24,631,405
Pension Trust Funds - demand deposits	(9,399,922)	32,017
Internal Service Fund - insurance plan demand deposits	(2,810)	83
Internal Service Fund - deferred compensation plan demand deposits	0	0

## Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to MOSERS. As of June 30, 2009, MOSERS' fixed income assets that are not government guaranteed represented 62% of the fixed income portfolio. In preparing this report, credit risk associated with all fixed income holdings including collateral for repurchase agreements and securities lending collateral has been included. The tables on the following page summarize MOSERS' fixed income portfolio exposure levels and credit qualities.

As a matter of practice, there are no overarching limitations for credit risk exposures within the overall fixed income portfolio. Each individual portfolio within fixed income is managed in accordance with operational guidelines that are specific as to permissible credit quality ranges, exposure levels within individual quality tiers, and average credit quality. A quality rating of CC or lower is not permissible in any of the guidelines except in those circumstances of downgrades subsequent to purchase, in which case the investment manager has been given permission to hold the security, usually due to mitigating circumstances such as a very short maturity or a much higher rating from one of the other ratings agencies, but may include situations in which the investment manager believes that worst case recovery values exceed market pricing.

Credit risk for derivative instruments held by the system results from counterparty risk assumed by MOSERS. This is essentially the risk that the counterparty to a MOSERS transaction will be unable to meet its obligation. Information regarding MOSERS' credit risk related to derivatives is found under the derivatives disclosures on pages 44-45 of these notes.

Policies related to credit risk pertaining to MOSERS' securities lending program are found under the securities lending disclosures found on page 45 of these notes.

#### Average Credit Quality and Exposure Levels of Nongovernment Guaranteed Securities

Fixed Income Security Type	Market Value June 30, 2009	Percent of All Fixed Income Assets	Weighted Average Credit Quality	Ratings Dispersion Requiring Further Disclosure
Mortgages	\$ 3,548,597	0.2%	Agency	None
Agencies	20,400,009	0.9	Agency	None
Collateralized mortgage obligations	149,870,298	6.4	BB-	See below
Asset-backed securities	102,933,310	4.4	A+	See below
Corporate bonds	507,370,993	21.7	BBB	See below
Bank loans	168,135,606	7.2	B+	See below
Pooled investments	505,872,574	21.6	Not rated	None
Total nongov't guaranteed securities	<u>\$1,458,131,387</u>	<u>62.4%</u>		
Total fixed income securities	\$2,339,458,624			

#### Ratings Dispersion Detail – Market Value

Credit Rating Level	Collateralized Mortgage Obligations	Asset-Backed Securities	Corporate Bonds	Bank Loans
Agency	\$ 11,098,849			
AAA	3,359,192	\$ 55,448,966	\$ 6,762,131	
AA	8,533,672		25,653,455	
A	12,904,104	4,673,930	274,952,221	\$ 453,274
BBB	5,601,416	22,932,141	40,752,687	6,436,076
BB	18,219,262	15,418,130	61,465,276	66,626,854
B	45,302,329	4,460,142	53,774,870	76,508,595
CCC	41,611,815		31,755,757	11,438,488
CC	3,239,658		2,679,258	1,744,868
C			491,618	
D			9,083,719	2,237,814
Not rated	<u>\$149,870,297</u>	<u>\$102,933,309</u>	<u>\$507,370,992</u>	<u>\$168,135,605</u>

## **Concentration of Credit Risk**

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of a government's investment in a single-issuer. There is no single-issuer exposure within the MOSERS' portfolio that comprises 5% or more of the overall portfolio. Therefore, there is no concentration of credit risk.

## **Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed by using the effective duration or option adjusted methodology. It is widely used in the management of fixed income portfolios by quantifying the risk of interest rate changes. This methodology takes into account optionality on bonds and scales the risk of price changes on bonds depending upon the degree of change in rates and the slope of the yield curve. Within the investment policy, operational guidelines specify the degree of interest rate risk taken within the system's fixed income portfolios, with the exception of some portfolios in which credit risk is the predominant factor and is also controlled by specific guidelines. It is believed that the reporting of effective duration found in the tables below quantifies, to the fullest extent possible, the interest rate risk of the system's fixed income assets. Floating rate assets that are structurally complex and contain inappropriate coupon adjustment mechanisms are expressly forbidden by the guidelines and are not present in any of the portfolios.

### Effective Duration of Fixed Income Assets by Security Type

Fixed Income Security Type	Market Value June 30, 2009	Percent of All Fixed Income Assets	Weighted Average Effective Duration (Years)	Interest Rate Risk Requiring Future Disclosure
U.S. treasuries	\$ 881,287,713	37.6%	4.8	See below
Government guaranteed mortgages	39,525	0.0	1.5	None
Mortgages	3,548,597	0.2	1.2	None
Agencies	20,400,009	0.9	1.9	None
Collateralized mortgage obligations	149,870,298	6.4	0.6	None
Asset-backed securities	102,933,310	4.4	0.0	None
Corporate bonds	507,370,993	21.7	0.6	None
Bank loans	168,135,606	7.2	(0.3)	None
Pooled investments	505,872,574	21.6	0.1	None
	<u>\$2,339,458,625</u>	<u>100.0%</u>	<u>2.0</u>	

### Effective Duration Analysis of U.S. Treasuries

Fixed Income Security Type	Market Value June 30, 2009	Average Effective Duration of the Security Type	Contribution to Effective Duration
Less than 1 year to maturity	\$ 80,403,170	0.1	0.0
1- to 10-year maturities	476,819,700	2.5	1.4
Long-coupon treasuries	285,522,802	8.4	2.7
Long-stripped treasuries	38,542,041	15.5	0.7
	<u>\$881,287,713</u>		<u>4.8</u>

## Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. MOSERS' currency risk exposures, or exchange rate risk, primarily reside within MOSERS' international equity investment holdings. MOSERS' implementation policy is to allow external managers to decide what action to take regarding their respective portfolio's foreign currency exposures using currency forward contracts. MOSERS' exposure to foreign currency risk in U.S. dollars as of June 30, 2009, is highlighted in the table below:

### Currency Exposures by Asset Class

Currency	Cash & Cash Equivalents	Equities	Fixed Income	Alternatives	Total
Australian Dollar	\$ 744,108	\$ 2,887,674			\$ 3,631,782
Brazilian Real	23,089	16,192,195			16,215,284
Canadian Dollar		7,032,245			7,032,245
Czech Koruna	(9,525)	845,882			836,357
Danish Krone	5	2,424,010			2,424,015
Egyptian Pound		1,621,641			1,621,641
Euro	287,063	159,813,514	\$12,027,895	\$78,485,960	250,614,432
Hong Kong Dollar	9,182	57,168,466			57,177,648
Hungarian Forint	3,903	42,352			46,255
Indian Rupee	211,699	7,078,654			7,290,353
Indonesian Rupiah		1,917,312			1,917,312
Israeli Shekel	(3,641)	650,097			646,456
Japanese Yen	5,192,634	368,216,654			373,409,288
Malaysian Ringgit	23,805	3,504,454			3,528,259
Maltese Lira		170,051			170,051
Mexican Peso	14,404	7,996,356			8,010,760
Moroccan Dirham	6,397	420,822			427,219
Norwegian Krone		5,402,149			5,402,149
Pakistani Rupee	13,090				13,090
Peruvian Nuevo Sol	6	32,206			32,212
Philippines Peso	(2,186)	644,535			642,349
Polish Zloty		2,644,684			2,644,684
Russian Ruble		34,888			34,888
Singapore Dollar		40,417,238			40,417,238
South African Rand	80,470	3,822,753			3,903,223
South Korean Won	633	47,352,517	458,304		47,811,454
Sri Lanka Rupee		1,482			1,482
Swedish Krona	25	4,749,349			4,749,374
Swiss Franc	75	60,947,991			60,948,066
Taiwan Dollar	8,525	23,274,295			23,282,820
Thai Baht	(6,363)	14,123,096			14,116,733
Turkish Lira	(6,688)	8,931,283			8,924,595
United Kingdom Pound Sterling	364,374	91,153,558	2,598,165		94,116,097
Venezuela Bolivar	107,248				107,248
Grand Total	\$7,062,332	\$941,514,403	\$15,084,364	\$78,485,960	\$1,042,147,059

## **Derivatives**

Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates, or financial indexes. They include futures contracts, swap contracts, options contracts, and forward foreign currency exchange. While the board has no formal policy specific to derivatives, the MOSERS investment implementation program, through its external managers, holds investments in futures contracts, swap contracts, and forward foreign currency exchange. MOSERS enters into these certain derivative instruments primarily to enhance the performance and reduce the volatility of its portfolio. It enters swaps and futures contracts to gain or hedge exposure to certain markets and to manage interest rate risk and uses forward foreign exchange contracts primarily to hedge foreign currency exposure. The tables below summarize the various contracts in the portfolio as of June 30, 2009. The notional values associated with these derivative instruments are generally not recorded on the financial statements; however, the amounts for the exposure (unrealized gains and losses) on these instruments are recorded. Interest risks associated with these investments are included the tables on page 42. MOSERS does not anticipate additional significant market risk from the swap arrangements.

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### Futures Contracts

<b>Futures Contract</b>	<b>2009 Expiration Date</b>	<b>Long/Short</b>	<b>Notional/Fair Value</b>	<b>Exposure</b>
U.S. Long Treasury Bond	September	Long	\$ 48,645,703	\$ (71,937)
U.S. 10-year Treasury Notes	September	Long	15,463,328	(64,499)
U.S. 5-year Treasury Notes	September	Long	53,688,375	(47,813)
U.S. 2-year Treasury Notes	September	Long	63,568,313	(10,922)
Hang Seng Index	July	Long	49,080,071	(410,333)
S&P 400 Index	September	Long	72,318,180	(250,800)
NASDAQ 100 Index	September	Long	65,693,125	(233,625)
S&P 500 Index	September	Long	280,463,425	(1,746,195)
Gold 100 Oz	August	Long	48,781,240	(699,580)
Total			\$697,701,760	\$(3,535,704)

### Swap Contracts

<b>MOSERS Receives</b>	<b>Maturity Date</b>	<b>Notional Value</b>	<b>Exposure*</b>	<b>Counterparty</b>
S&P 500 Total Return Index	4/30/2010	\$ 89,379,643	\$(3,127,279)	Goldman Sachs
Russell 3000 Total Return Index	7/31/2009	59,427,942	(176,978)	Goldman Sachs
MSCI EAFE Total Return Index	7/31/2009	55,403,927	(5,537,828)	Deutsche Bank
MSCI EAFE Total Return Index	5/28/2010	47,353,164	1,404,500	JP Morgan Chase
MSCI EMF Total Return Index	11/30/2009	64,991,581	920,159	JP Morgan Chase
Barclays Aggregate Bond Index	5/28/2010	40,227,507	(227,507)	JP Morgan Chase
Barclays Aggregate Bond Index	8/31/2009	160,910,029	(910,029)	Merrill Lynch
Barclays Aggregate Bond Index	11/30/2009	100,568,768	(568,768)	Merrill Lynch
CDX N. American HY Index	6/13/2010	(50,107,000)	62,634	JP Morgan Chase
GSCI Total Return Index	3/31/2010	105,744,911	(531,736)	Merrill Lynch
GSCI Excess Return - crude oil	4/15/2010	20,813,595	(813,595)	Merrill Lynch
GSCI Excess Return - crude oil	4/15/2010	(20,836,477)	836,477	Merrill Lynch
GSCI Excess Return	3/11/2010	50,245,353	(245,353)	Merrill Lynch
GSCI Excess Return	3/11/2010	(50,287,328)	287,328	Merrill Lynch
		\$673,835,615	\$(8,627,975)	

\* Swap contracts are governed by ISDA Master Agreements between MOSERS and counterparties. These agreements require collateral to be posted by either party when the exposure exceeds the amount specified in the agreement (usually \$2.5 to \$3 million).

## Foreign Currency Forward Contracts at June 30, 2009

Pending receivable	\$ 121,913,063
Pending payable	(122,469,340)
Foreign currency forward contract asset (liability)	<u>\$ (556,277)</u>

MOSERS could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. MOSERS' investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. MOSERS anticipates that the counterparties will be able to satisfy their obligations under the contracts. Investments in limited partnerships and commingled funds may include derivatives that are not shown in the derivative totals.

MOSERS invests in mortgage-backed securities, which are reported at fair value in the *Statements of Plan Net Assets* of pension trust funds and are based on the cash flows from interest and principal payments by the underlying mortgages. As a result, they are sensitive to prepayments by mortgagees, which are likely in declining interest rate environments, thereby reducing the value of these securities. MOSERS invests in mortgage-backed securities to diversify the portfolio and increase the return while minimizing the extent of risk. Details regarding interest rate risks for these investments are included under the interest rate risk disclosures on page 42.

### ***Securities Lending Program***

The board of trustees' investment policy permits the pension trust funds to participate in a securities lending program. Fixed income, international equity, and domestic equity securities of the pension trust funds are loaned to participating brokers who provide collateral in the form of cash, U.S. Treasury or government agency securities, or letters of credit issued by approved banks. Collateral must be provided in the amount of 102% of market value for domestic loans and 105% of market value for international loans. MOSERS does not have the authority to pledge or sell collateral securities, without borrower default. Securities on loan at fiscal year end for cash collateral and on loan for noncash collateral are presented in the schedule on page 46. On June 30, 2009, MOSERS had no credit risk exposure to borrowers because the collateral amounts received exceeded amounts out on loan.

As of June 30, 2009, Credit Suisse, New York Branch, served as the agent for the fixed income, domestic equity and international equity securities lending programs. In this capacity, MOSERS reduces credit risk by allowing Credit Suisse to lend these securities to a diverse group of dealers on behalf of MOSERS. Indemnification against dealer default is provided by Credit Suisse New York (CSNY), a "AA-rated" bank. With each of MOSERS' securities lending programs, a majority of loans are open loans and can be terminated on demand by either MOSERS or the borrower. Net income from the three lending programs is split on an 85/15 basis between MOSERS and Credit Suisse, respectively.

Daily monitoring of securities that are on loan ensures proper collateralization levels and mitigates counterparty risk. Cash collateral from all three programs is commingled and invested in a separately managed short-term investment fund and corporate bonds for MOSERS. This cash collateral fund is managed by Credit Suisse. On June 30, 2009, the cash collateral fund had a market value of \$385,276,913 and a weighted average maturity of 26 days. During the fiscal year, MOSERS has experienced a decline in demand for lendable securities. There was also a decline in the value of invested collateral below the level of the liabilities MOSERS has incurred from the securities lending program. If all the loans were terminated at June 30, 2009, MOSERS would have needed to make up the \$56 million difference between the invested collateral and the collateral liability. For all of the securities lending operational services, the custodian is paid an annual fee, which is netted out against MOSERS' earnings in the securities lending programs managed by Credit Suisse.

### ***Limited Partnerships***

Many of MOSERS' alternative investments are organized in the form of limited partnerships. In these partnerships, the manager is the general partner and the limited partners are the investors. As of June 30, 2009, MOSERS had contracts with 63 limited partnerships across various types of alternative investments. These partnerships collectively represent 46% of the total fund. A schedule of limited partnerships is presented on page 47.

Investments as of June 30, 2009

	<b>Pension Trust Funds</b>		<b>Internal Service Funds</b>	
	<b>Investments at Cost Value</b>	<b>Investments at Fair Value</b>	<b>Investments At Cost Value</b>	<b>Investments at Fair Value</b>
Common stocks				
Out on loan	\$ 102,621,778	\$ 91,696,927		
Not on securities loan	579,607,351	499,164,170		
Total	<u>682,229,129</u>	<u>590,861,097</u>		
International equities				
Out on loan	30,565,592	28,609,461		
Not on securities loan	536,946,426	811,018,363		
Total	<u>567,512,018</u>	<u>839,627,824</u>		
International corporate bonds				
Out on loan	3,223,654	3,036,035		
Not on securities loan	36,989,068	11,870,731		
Total	<u>40,212,722</u>	<u>14,906,766</u>		
Treasury bonds, notes and bills				
Out on loan	266,993,077	281,835,686		
Not on securities loan	509,323,116	533,870,080		
Total	<u>776,316,193</u>	<u>815,705,766</u>		
Government bonds and gov't mortgage-backed securities				
Corporate bonds				
Out on loan	22,228,495	20,620,088		
Not on securities loan	477,886,386	407,721,297		
Total	<u>500,114,881</u>	<u>428,341,385</u>		
Convertible bonds				
Repurchase agreements				
Short-term investment funds				
Collateralized mortgage obligations				
Real estate investment trusts				
Foreign currencies				
Limited partnerships				
Bank loans				
Total investments				
Out on loan	425,632,596	425,798,197		
Not on securities loan	5,759,823,061	6,213,449,542		
Total	<u>\$6,185,455,657</u>	<u>\$6,639,247,739</u>		

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Reconciliation to investments on  
*Statements of Net Assets*

Total from above	\$6,639,247,739
Less short-term investments	
Repurchase agreements	(440,603)
Short-term investment funds	(608,718,714)
Less invested securities lending collateral	
Short-term investment funds	(113,787,663)
Corporate bonds	(271,489,250)
Investments on <i>Statement of Plan Net Assets</i>	<u>\$5,644,811,509</u>

## Limited Partnerships

Partnership Name	Style	Investments at Fair Value as of June 30, 2009
Blackstone Real Estate Partners V	Active real estate	\$ 62,323,916
Blackstone Real Estate Partners IV	Active real estate	39,875,234
OCM Real Estate Opportunities Fund III	Active real estate	33,909,005
Blackstone Real Estate Partners VI	Active real estate	19,271,916
RH Fund 7	Activist equity	380,739
The Veritas Capital Fund III	Corporate buyout	25,197,916
Bridgepoint Europe III A	Corporate buyout	22,440,098
JLL Partners Fund V	Corporate buyout	21,079,695
Alinda Infrastructure Fund I	Corporate buyout	20,728,407
Catterton Partners V	Corporate buyout	19,270,427
Silver Lake Partners II	Corporate buyout	17,648,189
OCM/GFI Power Opportunities Fund II	Corporate buyout	15,195,523
JLL Partners Fund VI	Corporate buyout	13,592,199
Catterton Partners VI	Corporate buyout	13,148,568
New Mountain Partners III	Corporate buyout	11,217,408
Bridgepoint Europe IV B	Corporate buyout	1,808,634
Parish Capital Buyout Fund I	Corporate buyout - fund-of-funds	16,156,251
Parish Capital Buyout Fund II	Corporate buyout - fund-of-funds	9,881,661
King Street Capital	Credit driven	71,732,730
Silver Point Capital Fund	Credit driven	37,336,655
OCM Opportunities Fund VII B	Distressed debt	85,044,465
MHR Institutional Partners II	Distressed debt	44,449,440
MHR Institutional Partners III	Distressed debt	34,896,998
B IV Capital Partners	Distressed debt	13,594,788
OCM Opportunities Fund IV B	Distressed debt	522,463
Bayview Opportunity Domestic	Distressed real estate debt	150,909,462
CVI Global Value Fund A	Distressed real estate debt	80,300,000
Fortress Mortgage Opportunities Fund Series 2	Distressed real estate debt	18,740,954
Onyx Partnership	Emerging markets	88,832,492
Actis Emerging Markets Fund 3	Emerging markets	4,944,582
Axiom Asia Private Capital Fund II	Emerging markets	1,818,887
African Development Partners Fund I	Emerging markets	1,788,673
TCW Energy Partners	Energy - diversified	34,460,864
TCW Energy Partners Fund XIV	Energy - mezzanine	26,370,586
Merit Energy Partners F-II	Energy - oil & gas	4,691,177
OCM European Credit	European loans	52,448,554
Davidson Kempner Institutional Partners	Event driven	67,404,468
Diamond Ridge	Global macro	73,627,049
Blackstone Distressed Securities Fund	Long/short - credit	10,240,363
Viking Global Equities III	Long/short - equity	57,076,969
Eminence Fund	Long/short - equity	49,169,542
TPG-Axon Partners	Long/short - equity	41,174,179
Highside Offshore Fund	Long/short - equity	27,330,600
Spindrift Investors	Long/short - equity	16,868,469
Moon Capital Global Equity Offshore Fund	Long/short - equity	978,950
BGI Global Market Neutral Fund	Long/short - equity	53,493,134
Blackstone Hedged Equity Fund	Long/short - fund-of-funds	245,631,052
AQR Absolute Return Institutional Fund	Multi-strategy	102,567,847

Limited Partnerships (*continued from page 47*)

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Partnership Name	Style	Investments at Fair Value as of June 30, 2009
Farallon Capital Institutional Partners	Multi-strategy	39,745,654
HBK Offshore Fund	Multi-strategy	28,176,541
Eton Park Fund	Multi-strategy	25,337,860
Perry Partners	Multi-strategy	560,186
Newport Pioneer	Multi-strategy - fund-of-funds	248,596,683
Blackstone Topaz Fund	Multi-strategy - fund-of-funds	197,670,798
Aetos Alternatives Management Balanced Fund	Multi-strategy - fund-of-funds	2,079,705
AQR DELTA Sapphire Fund	Multi-strategy	52,047,840
Parish Opportunity Fund	Private equity co-investment	17,366,376
Silver Creek Special Opportunities Fund I	Special situations - fund-of-funds	24,156,449
Silver Creek Special Opportunities Fund II	Special situations - fund-of-funds	21,827,360
Wildwood Timberlands	Timberland	148,376,832
Global Timber Investors 7	Timberland	86,684,626
Garnet Sky Investors	Timberland	68,351,340
The Campbell Group	Timberland	50,832,640
Other Miscellaneous	Miscellaneous	18,614
		<u>\$2,873,401,682</u>

### ***Capital Assets***

Office building, furniture, fixtures, and equipment costing \$250 or more when acquired are capitalized at cost.

Improvements, which increase the useful life of the property, are also capitalized. Maintenance and repairs are charged to expense as incurred. Depreciation is computed using the straight-line method over the estimated useful life of the related assets according to the following schedule:

- 5 years for furniture, fixtures, and equipment
- 40 years for building

The following is a schedule of the capital asset account balances as of June 30, 2008, and June 30, 2009, and changes to those account balances during the year ended June 30, 2009.

### Capital Asset Account

Capital Assets	Land	Building and Building Improvements	Furniture, Fixtures, and Equipment	Total Capital Assets
Balances June 30, 2008	\$267,286	\$3,472,761	\$1,777,454	\$5,517,501
Additions		76,707	150,009	226,716
Deletions			(163,092)	(163,092)
Balances June 30, 2009	<u>267,286</u>	<u>3,549,468</u>	<u>1,764,371</u>	<u>5,581,125</u>
Accumulated depreciation:				
Balances June 30, 2008		827,568	1,361,553	2,189,121
Depreciation expense		78,371	161,129	239,500
Deletions			(160,552)	(160,552)
Balances June 30, 2009		<u>905,939</u>	<u>1,362,130</u>	<u>2,268,069</u>
Net capital assets June 30, 2009	<u>\$267,286</u>	<u>\$2,643,529</u>	<u>\$ 402,241</u>	<u>\$3,313,056</u>

### (3) Contributions and Reserves

The MSEP and the Judicial Plan are pension plans covering substantially all state of Missouri employees, administrative law judges and legal advisors in the Division of Workers' Compensation, and judges. The state of Missouri is obligated by state law to make all required contributions to the plans. The required contributions are expressed as a level percentage of covered payroll and are actuarially determined using an individual entry-age actuarial cost method. The unfunded accrued liabilities are amortized over an open 30-year period. Costs of administering the plans are financed from the contributions to the pension trust funds and investment earnings.

### (4) Other Postemployment Benefits (OPEB)

In addition to the retirement benefits provided through MOSERS, the state of Missouri also funds, either partially or in its entirety, OPEB for eligible retirees as follows:

#### *Retiree Life Insurance*

Members, who retire on or after October 1, 1985, are eligible for \$5,000 of state-sponsored basic life insurance coverage if they retire directly from active employment. As of June 30, 2009, 17,553 retirees were eligible and participating in the program. This insured defined benefit coverage is financed on a percent of payroll (.115%) and is purchased as a group policy through competitive bids. The cost for year ended June 30, 2009, was \$1,930,857. Premiums are contributed entirely by the state as provided for by Section 104.515, RSMo.

Retirees of the Department of Labor and Industrial Relations (DOLIR), who retired prior to January 1, 1996, are eligible for state-sponsored insured defined benefit insurance coverage in the same amount of coverage they were receiving through the DOLIR. As of June 30, 2009, 382 retirees were eligible and participating in the program. The coverage for this closed group is purchased as a group policy through competitive bids at a current cost of \$2.07 per thousand dollars of coverage, per month, per eligible participant (\$45,765 for the year ended June 30, 2009). Premiums are paid entirely by the DOLIR as provided for by Section 228.225, RSMo. Retirees of the DOLIR who retired on or after January 1, 1996, are eligible for \$5,000 of state-sponsored life insurance coverage if they retire directly from active employment. They are included in the group described in the preceding paragraph.

#### *Long-Term Disability Insurance*

MOSERS also provides for long-term disability coverage for eligible members. Membership generally includes those active members of MOSERS' retirement plans who do not have other disability coverage or are not yet eligible to receive normal (unreduced) retirement benefits. As of June 30, 2009, 39,666 members were eligible and covered under the program. This insured defined benefit coverage is financed on a percentage of covered payroll (.55%) and is purchased as group policy through competitive bids and is currently administered through The Standard Insurance Company. The cost for the year ended June 30, 2009, was \$8,610,135. Premiums are contributed by the state as provided for by Section 104.515, RSMo.

#### *Postemployment Retiree Health Care*

MOSERS participates in a cost-sharing multiple-employer defined benefit postemployment health care plan administered by the Missouri Consolidated Health Care Plan (MCHCP). The plan provides medical benefits to retirees of participating governmental entities. Retirees who had medical insurance coverage for six months immediately prior to termination or state-sponsored medical coverage since the effective date of the last enrollment period (or since first eligible), before they are eligible to retire, may continue coverage into retirement. MCHCP issues a publicly available financial report that includes financial statements and required supplementary information for the postemployment health care plan. The report may be obtained by writing to the MCHCP, 832 Weathered Rock Court, P.O. Box 104355, Jefferson City, MO 65110-4355 or by calling (800) 487-0771.

Plan funding requests are actuarially determined and approved by the MCHCP Board of Trustees subject to appropriation by the Missouri General Assembly. During fiscal year 2009, the Missouri General Assembly appropriated \$30,174,172 of the approximately \$40,000,000 determined by the MCHCP actuary as the prefunded portion of the annual required contribution (ARC) for postemployment health care. MOSERS contributed \$236,191 in fiscal year 2009, in accordance with the state's funding policy toward the ARC for postemployment retiree health care.

## (5) Plan Termination

MOSERS and its related plans are administered in accordance with Missouri statutes. Plans can only be terminated by an amendment to these statutes by the Missouri legislature.

On April 26, 2005, Senate Bill 202 was enacted, which terminated the Administrative Law Judges and Legal Advisors' Plan (ALJLAP) for new hires only. Under this legislation, individuals who assume a position after April 26, 2005, who would have otherwise been covered by the ALJLAP, will instead participate in the MSEP or the MSEP 2000, depending on when they initially became state employees. For fiscal years 2005 and after, all liabilities and assets of the ALJLAP were transferred and combined with the MSEP. Membership totals for ALJLAP members are combined with the MSEP in all relevant sections of this report.

## (6) Contingencies

MOSERS is a defendant in three lawsuits and a plaintiff in one lawsuit that, in management's opinion, will not have a material effect on the financial statements.

The Internal Revenue Service (IRS) audited the tax qualified status of MOSERS. In a discussion draft dated August 9, 2007, the IRS raised two qualification issues but no further action has been taken by the IRS on those matters. MOSERS does not anticipate material liability for any taxes or penalties.

*Required Supplementary Information*  
**Schedules of Funding Progress**  
Pension Trust Funds - Last Six Years

MSEP

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll ((b-a)/c)
6/30/2004	\$6,118,214,495	\$7,230,010,928	\$1,111,796,433	84.6%	\$1,737,454,454	64.0%
6/30/2005	6,435,344,102	7,578,028,017	1,142,683,915	84.9	1,806,600,560	63.3
6/30/2006	6,836,567,188	8,013,205,414	1,176,638,226	85.3	1,777,277,138	66.2
6/30/2007	7,377,289,283	8,500,428,641	1,123,139,358	86.8	1,846,643,330	60.8
6/30/2008	7,838,495,768	9,128,347,470	1,289,851,702	85.9	1,916,527,398	67.3
6/30/2009	7,876,079,342	9,494,806,715	1,618,727,373	83.0	2,002,402,087	80.8

ALJLAP\*

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll ((b-a)/c)
6/30/2004	\$16,238,804	\$20,384,213	\$4,145,409	79.7%	\$4,655,340	89.0%

\* Assets and liabilities of the ALJLAP were transferred to the MSEP during FY05.

Judicial Plan

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll ((b-a)/c)
6/30/2004	\$39,120,142	\$280,397,464	\$241,277,322	14.0%	\$39,878,499	605.0%
6/30/2005	44,223,509	292,303,886	248,080,377	15.1	40,016,098	620.0
6/30/2006	51,652,867	309,002,752	257,349,885	16.7	40,270,535	639.1
6/30/2007	61,903,516	326,666,373	264,762,857	19.0	40,846,581	648.2
6/30/2008	73,194,379	354,796,453	281,602,074	20.6	44,542,530	632.2
6/30/2009	81,337,881	369,106,841	287,768,960	22.0	45,505,512	632.4

See Notes to the Schedules of Required Supplementary Information.  
See accompanying Independent Auditor's Report.

*Required Supplementary Information*  
**Schedules of Employer Contributions**  
Pension Trust Funds - Last Six Years

MSEP

Year Ended June 30	Annual Required Contribution		
	Percent	Dollar Amount	Percentage Contributed
2004	9.35%	\$164,691,836	100%
2005	10.64	194,524,059	100
2006	12.59	226,338,183	100
2007	12.78	239,488,751	100
2008	12.84	249,770,156	100
2009	12.53	252,105,008	100

| Financial Section

| Fiscal Year 2009

Missouri State Employees' Retirement System

ALJLAP\*

Year Ended June 30	Annual Required Contribution		
	Percent	Dollar Amount	Percentage Contributed
2004	20.12%	\$ 945,950	100%
2005	22.13	1,124,924	100
2006*	21.79	895,012	100

\* The ALJLAP was transitioned to the MSEP Plan in FY05. FY06 was the last year for separate ALJLAP contributions. Future contributions are included in the MSEP rate.

Judicial Plan

Year Ended June 30	Annual Required Contribution		
	Percent	Dollar Amount	Percentage Contributed
2004	51.68%	\$20,636,314	100%
2005	54.51	21,852,985	100
2006	55.76	22,401,569	100
2007	58.48	23,745,467	100
2008	58.65	26,215,309	100
2009	60.07	27,725,882	100

See *Notes to the Schedules of Required Supplementary Information*.  
See accompanying *Independent Auditor's Report*.

## *Required Supplementary Information*

# Notes to the Schedules of Required Supplementary Information

Pension Trust Funds - Last Six Years

## Actuarial Methods and Assumptions for Valuations Performed June 30, 2009

The entry-age actuarial cost method of valuation is used in determining liabilities and normal cost. Differences in the past between assumed experience and actual experience (actuarial gains and losses) become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments (principal and interest), which are expressed as a percent of payroll. An open 30-year amortization period was used for the June 30, 2009, valuations. The actuarial value of assets is based on a method that fully recognizes expected investment returns and averages unanticipated market return over a 5-year period. However, at their meeting in September 2005, the MOSERS board considered the extreme volatility in the markets. As a result, the board elected to set the actuarial value of assets to market value as of June 30, 2005. Consequently, all remaining unrecognized investment gains or losses that would have otherwise been recognized over a period of years were fully recognized as of June 30, 2005. In the September 2009 meeting, the MOSERS board, in light of the severely negative market conditions, adopted a temporary change to the market corridor limit of the valuation assets from +/- 20% to +/- 30% for the June 30, 2009 valuation. The limit is scheduled to decrease to +/- 25% for the June 30, 2010 valuation and return to +/- 20% thereafter. The investment return rate assumption used is 8.5% per year, compounded annually (net of investment expenses). The price inflation assumption used is 3.2% per year. Projected salary increase assumptions are based on 0% the first year, to reflect the state's pay freeze, and 4% per year thereafter for wage inflation plus an additional .3% to 3.5% per year for the MSEP and 0% to 1.6% per year for the Judicial Plan (depending on age, attributable to seniority, and/or merit increases). The assumption used for annual post-retirement benefit increases is 4% (on a compound basis) for approximately the first 12 years, 3.1% for the 13th year, and 2.56% per year thereafter or 2.56% per year, depending upon the date of hire and benefit election.

2002 The actuarial valuations as of June 30, 2002, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2004.

	<b>Amount</b>	<b>Percent of Payroll</b>
<b>MSEP</b>		
Recognition of state pay freeze FY03	\$ (6,206,492)	(.35)%
Plan experience	15,782,223	.89
<b>ALJLAP</b>		
Recognition of state pay freeze FY03	(20,074)	(.42)
Plan experience	23,420	.49
<b>Judicial Plan</b>		
Recognition of state pay freeze FY03	(208,357)	(.52)
Plan experience	32,055	.08

2003 The actuarial valuations as of June 30, 2003, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2005.

	<b>Amount</b>	<b>Percent of Payroll</b>
<b>MSEP</b>		
Reduction in projected across-the-board pay increases to 1.67% for the fiscal year ending June 30, 2005	\$ (6,089,634)	(.35)%
Plan experience	28,543,284	1.64
<b>ALJLAP</b>		
Recognition of state pay freeze for annual salaries above \$40,000	(18,632)	(.40)
Plan experience	112,255	2.41
<b>Judicial Plan</b>		
Recognition of state pay freeze for annual salaries above \$40,000	(224,297)	(.56)
Plan experience	1,357,795	3.39

2004 The actuarial valuations as of June 30, 2004, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2006.

	<b>Amount</b>	<b>Percent of Payroll</b>
<b>MSEP</b>		
Change in assumptions	\$ 8,166,036	.47%
Experience and nonrecurring items	25,714,326	1.48
<b>ALJLAP</b>		
Change in assumptions	466	.01
Experience and nonrecurring items	(16,294)	(.35)
<b>Judicial Plan</b>		
Change in assumptions	(15,951)	(.04)
Experience and nonrecurring items	514,433	1.29

2005 The actuarial valuations as of June 30, 2005, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2007.

	<b>Amount</b>	<b>Percent of Payroll</b>
<b>MSEP</b>		
Mark to market asset valuation method adjustment	\$ (10,116,963)	(.56)%
Recognition of state pay freeze on across-the-board increases for FY06	(3,793,861)	(.21)
Experience and nonrecurring items including the addition of the assets and liabilities from the ALJ plan	17,162,705	.95
<b>Judicial Plan</b>		
Mark to market asset valuation method adjustment	28,011	.07
Recognition of state pay freeze on across-the-board increases for FY06	(136,055)	(.34)
Change in amortization factor to reflect the state pay freeze for fiscal year ending June 30, 2006	556,224	1.39
Experience and nonrecurring items	640,258	1.60

2006 The actuarial valuations as of June 30, 2006, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2008.

	<b>Amount</b>	<b>Percent of Payroll</b>
<b>MSEP</b>		
Change to an open 30-year amortization period	\$ (1,244,094)	(0.07)%
Experience and nonrecurring items	2,310,460	.13
<b>Judicial Plan</b>		
Change to an open 30-year amortization period	(265,786)	(0.66)
Experience and nonrecurring items	334,245	.83

2007 The actuarial valuations as of June 30, 2007, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2009.

	<b>Amount</b>	<b>Percent of Payroll</b>
<b>MSEP</b>		
Change in benefit assumptions or methods	\$ (369,329)	(0.02)%
Experience and nonrecurring items	(5,355,266)	(0.29)
<b>Judicial Plan</b>		
Change in benefit assumptions or methods	(273,672)	(0.67)
Experience and nonrecurring items	853,694	2.09

2008 The actuarial valuations as of June 30, 2008, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2010.

	<b>Amount</b>	<b>Percent of Payroll</b>
<b>MSEP</b>		
Change in benefit assumptions or methods	\$ 4,791,318	0.25%
Experience and nonrecurring items	(574,958)	(0.03)
<b>Judicial Plan</b>		
Change in benefit assumptions or methods	(547,873)	(1.23)
Experience and nonrecurring items	(160,353)	(0.36)

2009 The actuarial valuations as of June 30, 2009, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2011.

	<b>Amount</b>	<b>Percent of Payroll</b>
<b>MSEP</b>		
State of Missouri general pay freeze	\$ (4,405,285)	(0.22)%
Experience and nonrecurring items	55,466,538	2.77
Change in valuation asset corridor from +/-20% to +/-30%	(29,835,791)	(1.49)
<b>Judicial Plan</b>		
State of Missouri general pay freeze	350,392	0.77
Experience and nonrecurring items	496,010	1.09
Change in valuation asset corridor from +/-20% to +/-30%	(141,067)	(0.31)

## Actuarial Asset Value Smoothing

The financing objective of the vast majority of public retirement plans is to establish contribution rates and collect contributions which remain relatively level as a percent of active member payroll over decades of time. This concept is sometimes referred to as attempting to achieve intergenerational equity, meaning that future generations will not be expected to pay more or less (in inflation adjusted terms) than the present generation contributes to support the plan.

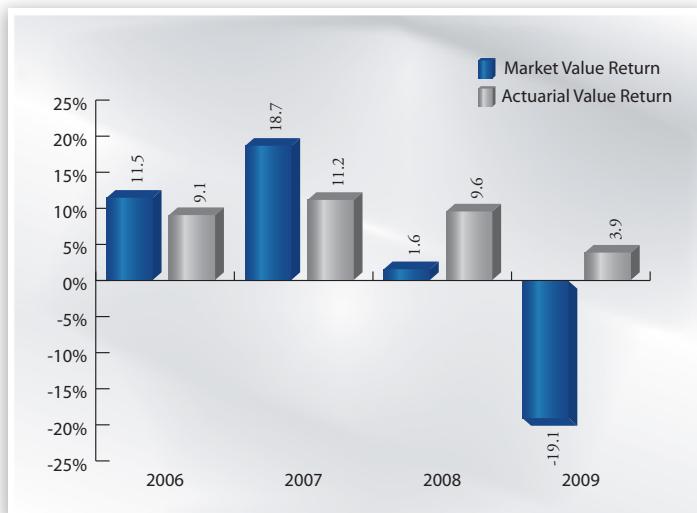
Some critics of smoothing the actuarial value of assets suggest that pension plans are not providing “transparency” in connection with operations.

Actual practice suggests otherwise. The *Statements of Plan Net Assets* and *Changes in Plan Net Assets* in this section are prepared on the basis of market values. Beyond that, all information related to asset values and results of investment activity in the *Investment Section* of this report is prepared on the basis of market values. This is required by the accounting and reporting standards established by the Governmental Accounting Standards Board and by the Government Finance Officers Association’s *Guidelines for the Preparation of a Comprehensive Annual Financial Report*. Both organizations have been long standing proponents of transparency in governmental accounting and reporting – public retirement plans commonly subscribe to the dictates of both.

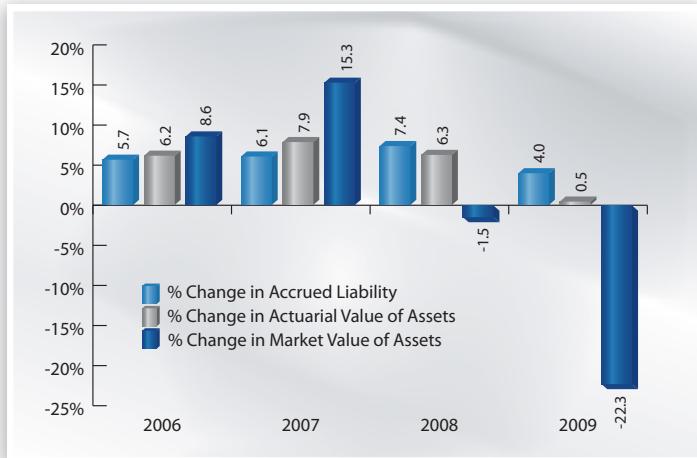
Many public retirement plans have begun to emphasize use of asset classes that, by their nature, tend to be somewhat volatile in market value. This is being done with the objective of increasing investment returns, thus providing increased benefit security for plan participants and lower contribution rates for taxpayers than would otherwise be the case. With market value accounting for contribution rate determination purposes, we could achieve more level contribution rates by employing lower volatility asset classes but the level contribution rate would be much higher than is the case with the higher return expectations we have as the result of taking on asset volatility risk.

For those of us attempting to operate with a long-term time horizon, with contribution rate stability as a key objective, asset smoothing for actuarial purposes is simply a tool. Asset smoothing for actuarial purposes is a practical solution to responsibly achieving intergenerational equity, giving recognition to the fact that market cycles do not coincide with financial reporting periods. The use of the “market related” value established through smoothing simply makes more sense for determining contribution rates than using market value. The bar charts above further illustrate the impact of smoothing volatility in actuarial computations.

Market Value Return vs. Actuarial Value Return



Percent Change in Values



Percent Funded - Market vs. Actuarial Asset Valuation Methods



# Schedules of Investment Expenses

Pension Trust Funds - Year Ended June 30, 2009

	MSEP	Judicial Plan	Total
<b>Investing activity</b>			
<u>Investment management and administration fees</u>			
Actis Capital - private equity	\$1,426,819	\$14,991	\$1,441,810
Aetos Capital - alpha program	1,061,140	11,149	1,072,289
African Development Partners I - private equity	703,527	7,391	710,918
Alinda Capital Partners - private equity	671,624	7,056	678,680
AQR Capital Management - alpha program	1,200,270	12,610	1,212,880
Axiom Asia Private Capital - private equity	74,830	786	75,616
Barclays Global Investors - alpha program	971,842	10,210	982,052
Bayview Asset Management - high yield	604,436	6,350	610,786
Bayview Asset Management - credit opportunities	1,208,872	12,701	1,221,573
Bayview Asset Management - real estate	604,436	6,350	610,786
BlackRock Financial Management - credit opportunities	633,005	6,651	639,656
BlackRock Financial Management - high yield	718,494	7,549	726,043
BlackRock Financial Management - MBS/ABS	116,697	1,226	117,923
Blackstone Distressed Debt Associates - private debt	344,922	3,624	348,546
Blackstone BREP V - real estate	981,205	10,309	991,514
Blackstone BREP VI - real estate	1,116,668	11,732	1,128,400
Blackstone Alternative Asset Management - hedged equity	2,784,209	29,252	2,813,461
Blackstone Alternative Asset Management - alpha program	2,487,837	26,138	2,513,975
Blackstone BREP IV - real estate	818,151	8,596	826,747
Blakeney Management - emerging markets	2,002,423	21,038	2,023,461
Bridgewater Associates, Inc - alpha program	2,856,096	30,003	2,886,099
Bridgepoint Capital - private equity	548,510	5,763	554,273
Bush O'Donnell - real estate	97,446	1,024	98,470
Catterton Partners - private equity	675,754	7,100	682,854
CarVal Investors - real estate	680,269	7,147	687,416
Davidson Kempner - alpha program	152,821	1,606	154,427
DDJ Capital Management - private debt	(310,255)	(3,260)	(313,515)
DG Capital Management - domestic equity	26,927	283	27,210
Eminence Capital - hedged equity	145,683	1,531	147,214
Fortress Investment Group - credit opportunities	119,399	1,254	120,653
Garnet Sky GFP Coinvestment - timber	(253,145)	(2,660)	(255,805)
Global Forest Partners - timber	574,024	6,031	580,055
Grantham, May and Van Otterloo & Co. - emerging markets	971,851	10,211	982,062
Harvest Fund Advisors - credit opportunities	240,415	2,526	242,941
HBK Offshore Fund - alpha program	203,843	2,142	205,985
Highside Offshore Fund - alpha program	298,865	3,140	302,005
JLL Partners - private equity	(210,445)	(2,211)	(212,656)
King Street Capital Management - alpha program	677,413	7,117	684,530
Legg Mason Opportunity Trust - domestic equity	469,998	4,938	474,936
Legg Mason Value Trust - domestic equity	306,568	3,221	309,789
Leuthold Weeden Capital Management - domestic equity	392,070	4,119	396,189
Mastholm Asset Management - int'l developed equity	607,081	6,378	613,459
Merit Energy Company - private equity	49,041	515	49,556
MHR Fund Management - private debt	(2,205,275)	(23,169)	(2,228,444)
Morant Wright Management - int'l developed equity	857,120	9,005	866,125
MOSERS - alpha program	62	1	63

# Schedules of Investment Expenses

Pension Trust Funds - Year Ended June 30, 2009

*Continued from page 57*

Missouri State Employees' Retirement System

	MSEP	Judicial Plan	Total
Financial Section	729,808	7,668	737,476
	682,975	7,176	690,151
	617,657	6,489	624,146
	151,541	1,592	153,133
	292,686	3,075	295,761
	20,259	213	20,472
	286,817	3,013	289,830
	(1,024,956)	(10,768)	(1,035,724)
	90,579	952	91,531
	(725,183)	(7,619)	(732,802)
	3,945,687	41,454	3,987,141
	4,285,795	45,028	4,330,823
	1,347,997	14,162	1,362,159
	606,805	6,375	613,180
	463,690	4,872	468,562
	709,735	7,457	717,192
	1,848,407	19,420	1,867,827
	(1,770,222)	(18,598)	(1,788,820)
	147,320	1,548	148,868
Fiscal Year 2009	484,587	5,091	489,678
	365,781	3,843	369,624
	1,380,900	14,508	1,395,408
	167,557	1,760	169,317
	1,532,164	16,097	1,548,261
	201,476	2,117	203,593
	33,474	352	33,826
	<b>45,376,879</b>	<b>476,741</b>	<b>45,853,620</b>
<b>Other investment fees</b>			
Investment consultant fees			
Summit Strategies, Inc.		828,036	836,736
Investment custodial fees		567,576	573,539
Mellon Bank		112,564	113,747
Partnership fees			
Performance measurement fees		186,732	188,694
Mellon Bank		2,924,425	30,725
Internal investment activity expenses		49,996,212	2,955,150
Total investing activity expenses			
<b>Securities lending activity</b>			
Securities lending borrower rebates			
Securities lending management fees		6,272,350	65,899
Mellon Bank		123,700	1,300
Credit Suisse First Boston		1,039,850	10,925
Total securities lending activity expenses		7,435,900	78,124
Total investment expenses		\$57,432,112	\$603,398
<b>Total</b>			
<b>\$58,035,510</b>			

# Schedules of Internal Investment Activity Expenses

Pension Trust Funds - Year Ended June 30, 2009

	MSEP	Judicial Plan	Total
<b>Personnel services</b>			
Salaries	\$1,811,289	\$19,031	\$1,830,320
Employee fringe benefits	518,660	5,450	524,110
Total personnel services	2,329,949	24,481	2,354,430
<b>Professional services</b>			
Attorney services	190,309	1,999	192,308
Consulting services	589	6	595
Total professional services	190,898	2,005	192,903
<b>Communications</b>			
Telephone	5,158	54	5,212
Total communications	5,158	54	5,212
<b>Travel and meetings</b>			
Staff travel and meetings	91,701	963	92,664
Total travel and meetings	91,701	963	92,664
<b>General</b>			
Educational materials	6,648	70	6,718
Office supplies	846	9	855
Subscriptions and dues	294,915	3,098	298,013
Video production	4,275	45	4,320
Miscellaneous	35	0	35
Total general	306,719	3,222	309,941
Total administrative expenses	\$2,924,425	\$30,725	\$2,955,150

# Schedules of Administrative Expenses

Pension Trust Funds - Year Ended June 30, 2009

Missouri State Employees' Retirement System

Fiscal Year 2009 | Financial Section

	<b>MSEP</b>	<b>Judicial Plan</b>	<b>Total</b>
<b>Personnel services</b>			
Salaries	\$3,426,017	\$35,996	\$3,462,013
Employee fringe benefits	1,229,504	12,917	1,242,421
Total personnel services	<u>4,655,521</u>	<u>48,913</u>	<u>4,704,434</u>
<b>Professional services</b>			
Actuarial services	150,215	1,578	151,793
Attorney services	112,154	1,178	113,332
Auditing services	43,543	457	44,000
Banking services	21,910	230	22,140
Consulting services	85,252	896	86,148
Total professional services	<u>413,074</u>	<u>4,339</u>	<u>417,413</u>
<b>Communications</b>			
Postage and mailing	351,494	3,693	355,187
Telephone	76,572	804	77,376
Printing	148,095	1,556	149,651
Video production	7,172	75	7,247
Total communications	<u>583,333</u>	<u>6,128</u>	<u>589,461</u>
<b>Building and grounds</b>			
Depreciation	77,556	815	78,371
Utilities	64,114	674	64,788
Maintenance	47,467	499	47,966
Total building and grounds	<u>189,137</u>	<u>1,988</u>	<u>191,125</u>
<b>Equipment</b>			
Depreciation	159,454	1,675	161,129
Maintenance	250,407	2,631	253,038
Rental	112,800	1,185	113,985
Gain on sale of equipment	(5,999)	(63)	(6,062)
Total equipment	<u>516,662</u>	<u>5,428</u>	<u>522,090</u>
<b>Travel and meetings</b>			
Board travel and meetings	31,261	328	31,589
Staff travel and meetings	187,812	1,973	189,785
Vehicle maintenance and operation	7,887	83	7,970
Total travel and meetings	<u>226,960</u>	<u>2,384</u>	<u>229,344</u>
<b>General</b>			
Educational materials	14,380	151	14,531
Office supplies	156,306	1,642	157,948
Subscriptions and dues	211,477	2,222	213,699
Insurance	116,532	1,224	117,756
Advertising	5,101	54	5,155
Total general	<u>503,796</u>	<u>5,293</u>	<u>509,089</u>
Total administrative expenses	<u>\$7,088,483</u>	<u>\$74,473</u>	<u>\$7,162,956</u>

# Schedules of Administrative Expenses

Internal Service Funds - Year Ended June 30, 2009

	<b>Life &amp; LTD</b>	<b>Deferred Compensation</b>	<b>Total</b>
<b>Personnel services</b>			
Salaries	\$364,642	\$105,125	\$469,767
Employee fringe benefits	120,709	34,742	155,451
Total personnel services	<u>485,351</u>	<u>139,867</u>	<u>625,218</u>
<b>Professional services</b>			
Attorney services	2,572	42,053	44,625
Auditing services	3,032	0	3,032
Banking services	601	0	601
Total professional services	<u>6,205</u>	<u>42,053</u>	<u>48,258</u>
<b>Communications</b>			
Postage and mailing	2,262	31,429	33,691
Telephone	5,690	0	5,690
Printing	0	739	739
Video production	797	0	797
Total communications	<u>8,749</u>	<u>32,168</u>	<u>40,917</u>
<b>Building and grounds</b>			
Building use charge	7,837	0	7,837
Utilities	4,464	0	4,464
Maintenance	3,305	0	3,305
Total building and grounds	<u>15,606</u>	<u>0</u>	<u>15,606</u>
<b>Equipment</b>			
Equipment use charge	16,227	0	16,227
Maintenance	17,320	0	17,320
Rental	7,854	0	7,854
Total equipment	<u>41,401</u>	<u>0</u>	<u>41,401</u>
<b>Travel and meetings</b>			
Board travel and meetings	2,176	0	2,176
Staff travel and meetings	19,983	0	19,983
Vehicle maintenance and operation	549	0	549
Total travel and meetings	<u>22,708</u>	<u>0</u>	<u>22,708</u>
<b>General</b>			
Educational materials	1,464	0	1,464
Office supplies	10,942	0	10,942
Subscriptions and dues	4,210	0	4,210
Insurance	8,113	0	8,113
Advertising	355	0	355
Miscellaneous	2	387	389
Total general	<u>25,086</u>	<u>387</u>	<u>25,473</u>
Total administrative expenses	<u>\$605,106</u>	<u>\$214,475</u>	<u>\$819,581</u>

# Schedules of Professional/Consultant Fees

Year Ended June 30, 2009

Missouri State Employees' Retirement System

Professional/Consultant	Nature of Service	Pension Trust Funds			Internal Service Funds		
		MSEP	Judicial Plan	Total	Life & LTD	Deferred Compensation	Total
<b>Operation administrative expenses</b>							
Avtex Solutions, LLC	Phone system consulting	\$ 2,961	\$ 31	\$ 2,992	\$ 0	\$ 0	\$ 0
Central Bank	Banking	21,910	230	22,140	601	0	601
Charlesworth & Associates	Risk management consulting	7,725	81	7,806	0	0	0
Claire West Consulting	Governmental pension consulting	24,740	260	25,000	0	0	0
Daniel J. Esser Consulting Services Co.	Disaster recovery consulting	742	8	750	0	0	0
Gabriel, Roeder, Smith & Co.	Actuarial	150,214	1,579	151,793	0	0	0
Gamble & Schlemeier, Ltd.	Governmental pension consulting	24,740	260	25,000	0	0	0
Hubber & Associates	Information technology consulting	10,688	112	10,800	0	0	0
Roundedcube	Sitecore implementation consulting	8,709	91	8,800	0	0	0
Sitecore USA, Inc.	Sitecore implementation training	4,948	52	5,000	0	0	0
Steptoe & Johnson, LLP	Legal counsel	4,794	50	4,844	0	0	0
Thompson Coburn, LLP	Legal counsel	107,360	1,128	108,488	2,572	42,053	44,625
Williams Keepers, LLC	Financial audit	43,543	457	44,000	3,032	0	3,032
<b>Operation administrative expenses subtotal</b>		<b>413,074</b>	<b>4,339</b>	<b>417,413</b>	<b>6,205</b>	<b>42,053</b>	<b>48,258</b>
<b>Internal investment administrative expenses</b>							
CT Corporation System	Statutory representation	589	6	595	0	0	0
Thompson Coburn, LLP	Legal counsel	190,309	1,999	192,308	0	0	0
<b>Internal investment administrative expenses subtotal</b>		<b>190,898</b>	<b>2,005</b>	<b>192,903</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total professional/consultant fees</b>		<b>\$603,972</b>	<b>\$6,344</b>	<b>\$610,316</b>	<b>\$6,205</b>	<b>\$42,053</b>	<b>\$48,258</b>

Information on investment management and consulting fees can be found in the *Schedule of Investment Expenses* on page 57-58.

# Investment Summary

Pension Trust Funds - Year Ended June 30, 2009

Type of Investment	June 30, 2008			June 30, 2009			Percent of Total Fair Value
	Cost Value	Fair Value	Purchases and Capital Additions at Cost	Sales and Redemptions at Cost	Cost Value	Fair Value	
<b>Fixed income</b>							
Treasury bonds, notes, and bills	\$ 829,009,945	\$ 895,130,825	\$ 140,233,944	\$ (192,927,696)	\$ 776,316,193	\$ 815,705,766	14%
Government bonds and gov't mortgage-backed securities	193,390,602	191,677,558	131,606,229	(260,278,090)	64,718,741	64,539,251	1
Corporate bonds	276,719,775	275,538,988	62,234,066	(166,538,634)	172,415,207	156,852,135	3
Convertible bonds	1,801,877	2,059,257	2,887,469	(631,946)	4,057,400	4,329,142	0
Collateralized mortgage obligations	36,230,588	34,217,785	103,718,931	(41,925,810)	98,023,709	108,751,920	2
International corporate bonds	49,344,498	37,586,459	20,553,099	(29,684,875)	40,212,722	14,906,766	0
Bank loans	189,263,686	182,518,410	117,602,606	(121,219,163)	185,647,129	168,439,460	3
Total fixed income	1,575,760,971	1,618,729,282	578,836,344	(813,206,214)	1,341,391,101	1,333,524,440	23
<b>Common stock</b>	855,947,519	778,416,792	221,743,113	(395,461,503)	682,229,129	590,861,097	10
<b>Preferred stock</b>	9	15	8,034,309	(8,034,318)	0	0	0
<b>International investments</b>							
International equities	776,358,377	1,110,134,223	31,331,691	(240,178,050)	567,512,018	839,627,824	15
Foreign currency	96,171,570	92,658,559	203,773,152	(293,321,191)	6,623,531	6,183,752	0
Total international investments	872,529,947	1,202,792,782	235,104,843	(533,499,241)	574,135,549	845,811,576	15
<b>Real estate</b>							
Equity holdings	734,035	734,035	0	(734,035)	0	0	0
Real estate investment trusts	0	0	1,894,611	(679,042)	1,215,569	1,212,714	0
Total real estate	734,035	734,035	1,894,611	(1,413,077)	1,215,569	1,212,714	0
<b>Venture capital</b>							
Limited partnerships	2,689,411,795	3,755,552,134	811,677,644	(965,251,784)	2,535,837,655	2,873,401,682	52
<b>Investments (per Statements of Plan Net Assets page 30)</b>	5,994,384,276	7,356,225,040	1,857,290,864	(2,716,866,137)	5,134,809,003	5,644,811,509	100%
<b>Short-term investments</b>							
Short-term investment funds	672,697,400	672,697,400	996,594,316	(1,060,573,002)	608,718,714	608,718,714	
Repurchase agreements	1,717,198	1,717,198	168,145,519	(169,422,114)	440,603	440,603	
Total short-term investments	674,414,598	674,414,598	1,164,739,835	(1,229,995,116)	609,159,317	609,159,317	
<b>Invested securities lending collateral</b>							
Corporate bonds	638,420,238	622,253,359	350,277,984	(660,998,548)	327,699,674	271,489,250	
Short-term investment funds	368,194,020	368,194,020	33,890,500,058	(34,144,906,415)	113,787,663	113,787,663	
Total invested securities lending collateral	1,006,614,258	990,447,379	34,240,778,042	(34,805,904,963)	441,487,337	385,276,913	
Total investments	\$7,675,413,132	\$9,021,087,017	\$37,262,808,741	\$(38,752,766,216)	\$6,185,455,657	\$6,639,247,739	

Note: Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS office.

## Investment Summary

Internal Service Funds - Year Ended June 30, 2009

Type of Investment	June 30, 2008			June 30, 2009			Percent of Total Fair Value
	Cost Value	Fair Value	Purchases and Capital Additions at Cost	Sales and Redemptions at Cost	Cost Value	Fair Value	
Repurchase agreements	\$2,343,991	\$2,343,991	\$599,207,059	\$(598,909,004)	\$2,642,046	\$2,642,046	100%

Note: Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS office.



A clear assessment of the **global** economy  
to achieve future investment success.

## **INVESTMENT SECTION**

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# Chief Investment Officer's Report



*Missouri State Employees' Retirement System*

**Mailing Address**  
PO Box 209 • Jefferson City, MO 65102-0209

**Building Location**  
907 Wildwood Drive • Jefferson City, MO

October 20, 2009

Dear Members:

On behalf of the entire MOSERS' investment staff, I humbly present to you the *Investment section* of the MOSERS *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2009.

The unprecedented market volatility of the past year gives me pause as I begin to write this letter. This year's financial markets were abysmal and, as a result, our FY09 investment returns were, in absolute terms, poor. Even with all the negatives in the past fiscal year, I can honestly say that I am proud to be a part of MOSERS. We have a solid investment program and the MOSERS investment team is clearly focused on generating strong risk-adjusted investment returns over the long-term. It is our objective to ensure that the retirement benefits promised you by the state of Missouri are secure and will be paid at the lowest cost possible to the taxpayers.

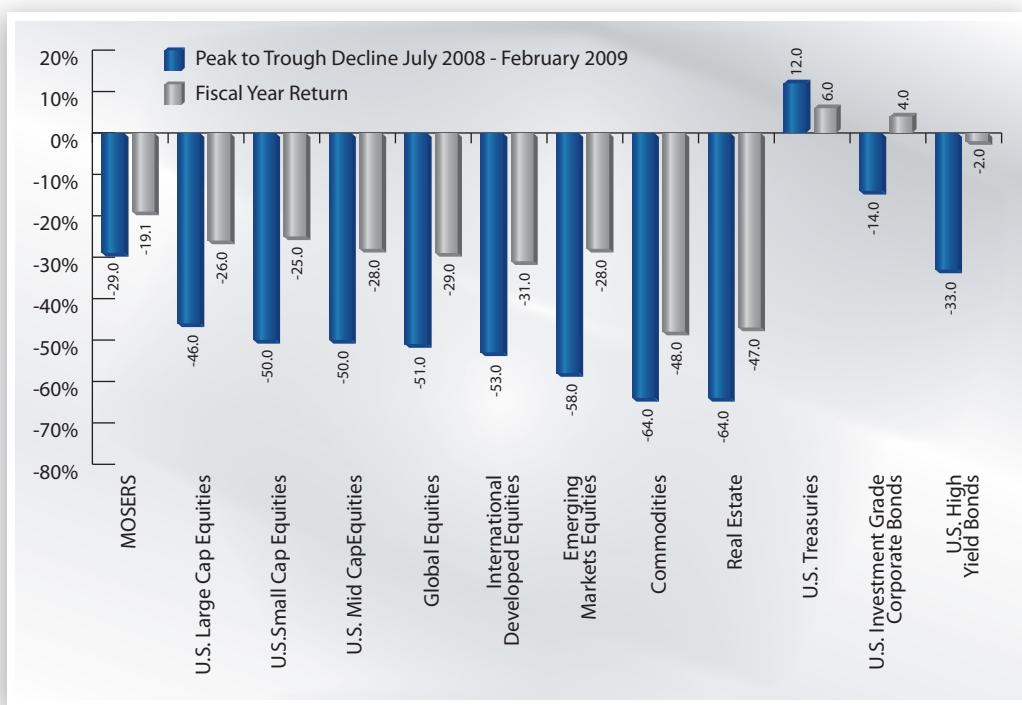
## Investment Performance

On numerous occasions, I have stated that our portfolio is very well diversified across multiple asset classes and strategies. It is my belief that this diversification is the most important risk mitigation tool available to investors. While I continue to believe in diversification, the extreme market dislocation of the past year confirmed what most investment professionals knew in the back of their minds, but just didn't want to admit. When large unexpected shocks hit the financial markets, all assets perceived to be risky will trade down in unison. During these periods, diversification provides only marginal benefit. What is most important during these extreme periods is a nimble investing structure which allows seasoned investment professionals to manage risk and position the portfolio to capitalize on opportunities that emerge.

Our investment return for the year ended June 30, 2009, net of fees, was -19.1%. This return is MOSERS' worst 1-year result on record. There are many things related to my career at MOSERS for which, one day, I would like to be remembered. Being responsible for the largest 1-year loss in the history of the fund is certainly not one of them. I wish that something more could have been done to insulate the fund during this turbulent time however, the magnitude and speed with which the equity market and other risk assets declined last fall was an event unlike anything our nation has seen since the Great Depression. It was truly unprecedented.

The chart below shows the performance of many of the asset classes in which we invest for two time periods. The first time period (the blue bars) reflects the seven months of the fiscal year from July 1, 2008 through the end of February 2009, while the second time period (gray bars) reflects the entire fiscal year including the market rally that began at the first of March 2009. This chart provides a clear visual depiction of how extreme the financial events of last year were. In the first seven months of the fiscal year the financial market returns, for nearly every asset class, were in a severe downturn. The results for the 12 month period ending June 30, 2009 were still a loss, but had recouped some of the dramatic decline of the beginning of the year.

FY09 Asset Class Performance



While absolute returns were disappointing, our relative results were actually strong and positive.

In comparison to our policy benchmark:

- The total fund exceeded the market benchmark by 0.6%.
- The incremental one year return (excess over policy benchmark) resulted in over \$56 million more for the fund than would have been earned had the entire portfolio been invested passively to match our asset allocation policy.
- Last year's performance brought our long-term results, measured over the last 15 years, to 8.2%, outperforming the policy benchmark over that same time-frame by 1.3% per annum.
- The incremental reward from investment performance over 15 years has been \$1.5 billion earnings, enhancing the security of our member's benefits and reducing the amount of money needed from Missouri taxpayers.

In comparison to other multi-billion dollar public pension funds:

- Last year's performance placed us near the middle of the pack.
- Across longer time periods of 3-, 5-, 10- and 15-years, our results remain consistently in the top 7% of the public pension fund universe.
- In round numbers, our investments generated \$1.1 billion more for MOSERS' coffers than would have been the case had our performance been average over the past 15 years.

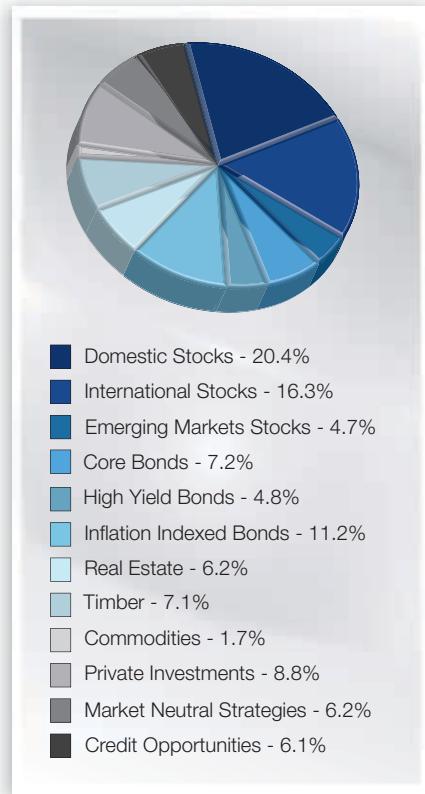
## When Times Are Tough, Process is Critical

Falling markets, lack of transparency into the dealings of our largest financial institutions, compensation scandals and the Bernie Madoff fraud are a few things that come to mind in describing the last year. Given the magnitude of the last year's events, a natural human reaction is distrust, increased scrutiny and, often, calls for "reform." During periods like this, sound long-term objectives combined with a well-defined process for achieving those objectives becomes of utmost importance. Organizations lacking strong objectives and/or a disciplined investment process, frequently respond with knee-jerk reactions which merely exacerbate investment losses. While MOSERS has faced some great adversities in the last year, I'm pleased to report that solid investment program objectives and disciplined processes have persevered.

## Diversified Asset Allocation Policy

Our process starts with the policy asset allocation decision made by the board of trustees. This decision dictates, to a very large degree, the amount of risk taken in the portfolio and the associated returns over the long-term. The policy asset allocation decision is the primary factor in targeting the long-term return objectives established by the board. MOSERS' policy asset allocation is geared toward long-term investments that could generally be categorized in one regard or another as risk bearing. These long-term risk bearing assets were selected in an effort to generate returns considerably higher than what could be expected if our focus was short-term capital preservation. In using a long-term investment approach, we expect to reduce the amount of money needed from the state of Missouri in order to properly fund the retirement system. This approach has served our members and the taxpayers well for many years. However, the downside to this approach is simply that from time to time (about once every 4-5 years in the case of stocks) the "risk" side of the equation materializes and the return side does not. It's important to understand that producing strong long-term results can only be achieved if the portfolio includes investments that can and will occasionally produce negative results in some short-term periods. FY09 was clearly one of those time periods as the policy portfolio generated a return of -19.6%, while our actual return was -19.1%.

Asset Diversification



The pie chart at the right illustrates the broad diversification of our portfolio at this time.

Once the policy asset allocation has been determined, the next step in the process involves the board delegating implementation decisions (day-to-day management) to investment professionals. As part of this delegation, staff is given the latitude to make adjustments to the portfolio to take advantage of opportunities as they emerge. For measurement purposes we classify these implementation decisions into two distinct components; strategic and manager selection. Strategic decisions are those actions taken to alter the asset allocation away from the long-term allocation adopted by the board within pre-approved ranges. Manager selection decisions include whether to invest passively or actively and, if active management is chosen, the selection/hiring of specific managers whose performance is then measured relative to appropriate benchmarks.

## Strategic Decisions

In FY09, strategic decisions added 6.4% to the fund's total return and resulted in approximately \$506 million of additional value, pushing our 10-year strategy results up to 1.8% per annum, well above our long-term expectation which is to generate 1% per annum from strategic decisions. The following are some significant strategic decisions that added value to the fund.

In public equity, the decision to be overweight in Japanese equities and currency, and underweight in European equities and currency relative to our benchmark made a positive contribution to the fund. As the “financial crisis” unfolded, investors began to realize that Europe’s banking sector was in a similar position to the U.S. banking sector (highly leveraged) and that corporate sector growth in Europe would be adversely affected. Japan’s banking and corporate sector, after having lived through their own crisis for the last 20 years, entered the crisis with very little debt, large amounts of cash equivalents, and already low asset valuations. This liquid and unleveraged financial position became relatively attractive to many investors. In summary, there was less risk in the Japanese financial structure relative to the rest of the world. Another strategic allocation move that worked well was made in late September. We made a risk reduction trade within our equity portfolio that saved the fund approximately \$100 million.

A strategy that worked well in public debt involved holding a substantial overweight to U.S. treasuries in our core bond portfolio throughout the year. The economic freefall that occurred last fall caused investors to flock to the safety of treasuries driving prices dramatically higher on these securities. At the same time prices on investment grade credits, like corporates and high grade agency mortgages declined. Another strategy that served the fund well along the same theme of eliminating credit exposure was a decision to hedge our high yield bond exposure within the high yield sub-class. In this particular case, instead of selling our bonds we purchased credit protection on the high yield portfolio.

Strategic positioning within alternatives added value to the fund, largely due to our decision not to own REITs during FY09. Instead, we were invested in publicly traded master limited partnerships (oil and gas pipeline assets) which outperformed REITs by over 30%.

### Manager Selection Decisions

In FY09, manager implementation decisions reduced the total fund return by 5.8% resulting in an approximate \$450 million decrease in fund value. This was our worst 1-year return for manager implementation on record. Very few of our active managers outperformed their benchmarks in FY09. Across the universe of active U.S. equity managers, the majority underperformed the S&P 500 in FY09. Our U.S. equity managers were no exception. Over longer periods of time we expect our efforts in this particular area to add about 1% per annum to the returns of our portfolio. Our 10-year annualized implementation return relative to our strategic benchmark at June 30, 2009 now stands at 0.3%, well below our long-term expectation. This year's results negatively impacted the 10-year performance quite significantly, lowering the value added from just over 1% to 0.3%, we clearly have much ground to make up in this area.

### Focus for the Future

The extreme dislocation that has occurred in the economy and the financial markets over the past 24 months has given most investors pause. Some financial professionals are challenging the traditional view that long-term investors should load up on equities. I agree. Too much of anything is a bad thing and that includes equities over the long-term. At MOSERS, we have held the view for more than a decade that diversification is critical because the future is unknown. That belief has enabled us to produce strong, consistent results. Our belief in asset diversification did not waiver when the financial world collapsed last fall. If anything it made us more determined to expand diversification.

Today, our efforts are leading us to many of the debt sectors that were at the epicenter of the crisis. While valuations in many of these areas have improved, opportunities still exist for investors with liquidity to get good deals from investors who need to sell. In the world of stocks, companies with strong balance sheets, stable dividends and a global reach will be the likely winners going forward. Sticking with solid balance sheet companies with great international brands will be the best bet if the economy muddles along going forward.

There are many who believe that all of the pump priming measures being utilized by the Federal Reserve and U.S. Treasury officials will be successful in reigniting the consumer's willingness to spend and, as a result,

credit creation and economic growth will begin anew. Certainly, money creation can make the economy grow in nominal terms. However, a debt-laden consumer and large amounts of excess capacity, keeping a lid on wages and business fixed investment, suggests to me that real economic growth will be slow for an extended period of time. With that said, all the newly minted dollars must go somewhere – they are inflationary. So where did these newly printed greenbacks go? They are certainly not going into wages (wages are falling). How about home values? That bubble burst last year and will not return for a long time. Typically, when people talk about inflation they think about it in terms of consumer prices, like food and energy. Is there inflation in raw materials? Perhaps a case can be made that the recent price increases in oil are the result of the activity of the printing press, but overall, consumer prices are flat. So where has all the new money gone? It seems to me as though the majority of the stimulus dollars have found their way into the stock and high yield bond markets. That's great. Those of us invested in these areas feel better and perhaps we are in a little better mood for a night out at the local steakhouse. The problem is we haven't gotten rid of the debt which started this mess over two years ago. Our financial institutions have a little less debt than they did and the largest ones are better capitalized now, so maybe they are better able to lend (even though they would rather not) and the consumer has started to save, but their net worth is still well below where it was a couple years ago. What about Uncle Sam? This country's balance sheet is ugly and getting worse by the day. The national debt currently stands at about \$11.7 trillion with unfunded liabilities including Social Security, Medicare/Medicaid and prescription drug benefits nearing \$60 trillion. That's nearly \$200,000 of debt for every man, woman and child in the U.S. It is these numbers that are increasingly causing foreign government leaders to speak openly about the need for a new "world reserve currency" to replace the U.S. dollar. Ultimately, debt gets worked off and balance sheet health gets restored over many years, not months. As debt levels begin the lengthy process of returning to a more manageable level it is likely that real economic growth will be below trend line. Below trend line real GDP is really nothing more than below trend line real earnings growth from the companies that make up the economy and the stock market. The stock market will figure this out; maybe not next week or next month, but eventually and when it does, the stock and junk bond rally will fade.

## Conclusion

We will continue to manage the assets of MOSERS with an eye toward broad diversification, a contrarian investment philosophy, and strong risk management practices, all of which are made possible by the sound governance process the board has adopted. It is these traits that have served us well over the years and allowed us to generate returns, for our members, ranked at the top among our peer institutional investors. With that said, the world and the U.S. are facing some of the most severe financial challenges in our history. Last year, I ended my annual report letter by stating that Americans needed to work harder, save more, spend less and allow time to work its magic. This translates into "the party has ended" and now we must all deal with the hangover. In order for human beings to accept a lower standard of living for a period of time, in the hope of allowing our country to be more competitive in the future, we must first pass through the emotional stages of denial, anger and bargaining. Perhaps Americans, individually, are a bit further along in this process (somewhere between anger and bargaining) than is our government, which still seems to be squarely in the denial phase. But in quoting the Wicked Witch of the West from the movie *The Wizard of Oz*, "All in due time my pretty, all in due time."

I would like to thank the board, the ultimate fiduciaries of this pension fund, for their willingness to stand outside the pack and maintain a governance structure that facilitates the pursuit of excellence in all that we do. To you, the members, I commit that we are clearly focused on achieving long-term investment success to ensure that the retirement benefits promised you are secure and at the lowest cost possible to the taxpayers.

Sincerely,



Rick Dahl  
Chief Investment Officer

# Investment Consultant's Report



**Summit Strategies Group**

October 20, 2009

The Board of Trustees  
Missouri State Employees' Retirement System  
907 Wildwood Drive  
Jefferson City, MO 65109

Dear Board Members,

Clearly, the fiscal year ended June 30, 2009, was an investment year none of us wants to have to live through ever again. Even with a strong, double-digit rebound in the markets in the last 3-1/2 months of the fiscal year, the total portfolio return was -19.1%. This is the lowest one-year return in the history of MOSERS, which puts the events of the last year in perspective. The flaws of over-leveraged consumers and debt markets resulted in major damage to investors, financial institutions, and central governments around the world with most of the devastation occurring between September 2008 and March 2009, a time period completely encapsulated within this fiscal year.

Any assessment of the global economic future must recognize the two major undertakings of the last year. First, unprecedented steps taken by central banks around the world were successful in preventing the collapse of the global financial system that would have taken the global economy down with it. I believe history will look back favorably on the actions of Ben Bernanke and his counterparts around the globe and say they were necessary and proper to keep capital markets functioning. The second major action, the creation of trillions of dollars of debt and the massive printing of money, will take far longer to assess and have a far greater impact on the future of the global economy. Because we have never before seen action like this taken in such magnitude, it is difficult to predict the ultimate consequences, but I feel very safe saying that our lives will be forever impacted.

Taxes, regulation, standards of living, and cultures will all be materially altered indefinitely as a result of this second major action of the last year. Global growth forecasts have already been significantly reduced by groups like the World Bank, which also points out that growth forecasts are very different for developed debtor economies and the developing creditor economies. Slower growth suggests we will see stresses to our economy that will result in weak companies and industries going away or being gobbled up by stronger companies and quality industries. These trends tell me that asset allocation, thoughtful active management and nimble deployment of capital to opportunistic situations will be more important in the future than they ever were in the past.

Fortunately, I believe MOSERS is this type of investor and now can point to over a decade of success in this regard.

Every year as I sit down to write this letter, I begin by reviewing my previous year's letter. This year, I decided to read my letters from the last ten years. I never attempted to predict the market's future behavior in any of the letters; in fact, in six of the last ten years' letters, I state my belief that market timing is impossible and therefore, we are all subject to the movements of the markets. I have also said in numerous letters that, as investors, the only thing we can hope to impact is relative return results versus the market's return. If we can make a little more or lose a little less than the broad financial markets, we will be successful investors.

8182 Maryland Avenue, 6th Floor • St. Louis, Missouri 63105 • 314.727.7211, 314.727.6068 (fax)

In my 2001 letter I said, “**if the efforts of the board and its investment professionals can result in 1% value-added through both bull markets and bear markets, the fund and its participants will be very well served.**” In reality, over the past decade, the relative value-added was actually slightly more than 2% per year. Relative value is the difference between what could have been achieved through a passive allocation to financial markets (which returned 2.26% during this time period based on our allocation model) and the actual MOSERS portfolio (which returned 4.31% for same period). While it is difficult to find comfort in a 10-year absolute return of 4.31%, as trustees, I believe you should take pride in the fact that this return ranked MOSERS, impressively, in the top 7% of the ICC universe of public funds. In other words, MOSERS’ investment returns were better than what was achieved by 93% of public pension plans having assets in excess of \$1 billion.

Several other comments from my previous annual letters provide for some interesting reflection. In the 2000 annual letter, one year into the last bear market that resulted from the internet bubble, I wrote, “**I believe the era of working harder for less return is near, if not upon us.**” Unfortunately, I never imagined how correct this statement would turn out to be. Nine years later, I would say this sentiment continues to be a valid harbinger for the years ahead. There have only been two 10-year periods when the stock market’s total return was negative. The first was the Great Depression, and the second is now. Consequently, I think it is reasonable to conclude that the next ten years will treat investors better than the last ten, but I firmly believe the need to remain nimble, contrarian, and innovative will continue to be critical to achieving our investment goals.

In 1999, at a time when the fund had grown at an annualized rate of 12.2% for the previous decade, (its best 10-year results ever) the MOSERS board chose to delegate manager selection decisions to staff and the consultant. That year, I wrote, “**The decision to hire, fire, or alter the manager line-up within the policy has become the responsibility of staff and the consultant. Policies are in place, responsibility has been delegated, benchmarks have been established, and monitoring periods have been identified. In addition, the board has built financial incentives into the structure so that the people accountable for these decisions are financially aligned with their success. This is revolutionary in the public pension arena and highlights the willingness of the board to be creative, think ‘outside the box’, and adopt positions that may be criticized in order to bring the best structure and environment to this fund.**”

In 2003, I wrote, “**. . . we all believe that the confidence, latitude, and trust the board has placed in us is the major story of the past decade at MOSERS.**”

What did you get for your confidence, latitude, and trust over the last decade? You got a fund that outperformed 93% of the large public retirement fund universe and a fund that is over a billion dollars to the good by virtue of earnings in excess of what would have resulted from passive implementation of the asset allocation model.

What can you expect in the future? I see nothing that has changed with respect to the importance of confidence, latitude and trust. It is a given that crisis results in opportunities. The cooler heads that prevail will be those that will capitalize on those opportunities. While the environment has changed, the fundamental formula for success has not. There will definitely be winners and losers in the slow growth economy of the foreseeable future. The efforts of thoughtful focused investment professionals operating as they have over the past decade will provide an excellent stage upon which MOSERS can continue to be distinguished from the pack in a positive manner.

Sincerely,



Stephen P. Holmes, CFA  
President

# Investment Policy Summary

The MOSERS Board of Trustees is charged with the responsibility for investing the assets of the system in a manner consistent with fiduciary standards set forth in the prudent person rule. To that end, the board has adopted the following principles to guide all investment-related decisions:

- Preserve the long-term corpus of the fund.
- Maximize total return within prudent risk parameters.
- Act in the exclusive interest of the members of the system.

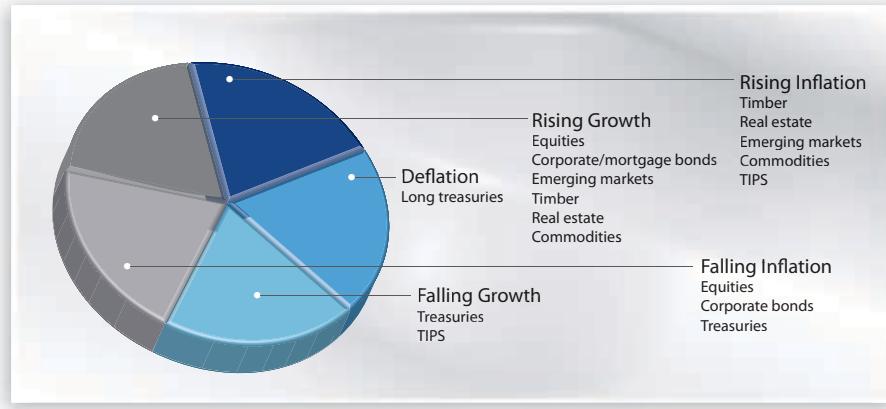
The investment policy summary serves as a reference point for management of system assets and outlines MOSERS' investment philosophy and practices.

## Investment Objective

In keeping with the three guiding principles, the board has established the following broad investment objectives:

- Develop a real return objective (RRO)<sup>1</sup> that will:
  - Keep contribution rates reasonably level over long periods of time, absent changes in actuarial assumptions.
  - Maintain contribution rates consistent with historical levels ranging from 8% to 12% of covered payroll.
- Establish an asset allocation policy that is expected to meet the RRO over long periods of time, while minimizing volatility.
- Minimize the costs associated with implementation of the asset allocation through the efficient use of internal and external resources.

## Economic Diversification



the fundamental concepts outlined in these beliefs should stand the test of time. The primary beliefs underlying MOSERS' investment program are as follows:

- **Diversification is critical because the future is unknown.** MOSERS' investment portfolio has been built upon the premise that very little is known about what the future holds and, as a result, the portfolio is structured to combat a variety of economic outcomes. The pie chart above reflects the various economic environments and the types of investments that should be expected to perform well in those environments. While staff may have views on the direction of the markets over the short term, the adjustments to the portfolio will only be made at the margins to match those views. As a result, the portfolio will have significant diversification to provide risk reduction in a variety of markets.

## Investment Beliefs

MOSERS' internal investment staff and external asset consultant have established investment beliefs, which have served as a guiding light in the implementation of the investment objectives adopted by the board. These beliefs have helped to form the basis of every decision made within MOSERS' portfolio. From time to time, these beliefs may need slight modification to keep pace with the changing investment landscape; however,

<sup>1</sup> The RRO is the rate by which the total return exceeds the inflation rate as measured by the CPI, U.S. City Average for all Urban Consumers (CPI-U). MOSERS' real return is the excess return over the CPI utilizing the formula: Real =  $(1 + \text{Nominal}) / (1 + \text{CPI})$ . As of June 30, 2009, the RRO was 5%.

- Every investment should be examined in the context of the two distinct return components – beta and alpha.

Beta is the return which is expected from simply having exposure to the asset class. It is the return that can be earned by investing passively within a specific asset class. Exposures to beta can be purchased very cheaply and, over long periods

of time, it is expected that returns from beta should be positive and coincide with the risk associated with a given asset class. In contrast, alpha is the return generated through a manager's ability to select particular investments that perform better than the asset class as a whole. Alpha is a zero-sum game. For every winner, there is a loser on the other side. Historically, MOSERS' portfolio has been heavily weighted towards investments that provided mainly beta returns. MOSERS made a decision as early as 2002, after a formal asset/liability study, to place a greater emphasis on generating alpha returns within the portfolio. It was expected that returns strictly from beta would not generate the returns necessary to fund the liabilities of the system. That decision was confirmed in the most recent formal asset/liability study completed in July 2007. As reflected in the chart above, several alpha-generating strategies are in place within the portfolio today.

- Asset classes will be in and out of favor at different times and they all tend to be cyclical, thus flexibility is key. This belief acknowledges that economies are cyclical; thus, it is only logical that certain investments will fair better than others depending upon the current economic environment. In order to make a "good" investment, the price one pays for an investment must be considered. No investment offers the birthright of a high return. In order to capitalize on potential opportunities that may arise due to asset classes being "cheap" or "expensive" relative to their historical norms, the board has granted the CIO the ability to make strategic sub-asset class allocation decisions at the margins subject to predefined ranges.
- This isn't about risk or return. It's about risk-adjusted returns with a long-term focus on the liabilities. While it is easy to focus all attention on the returns a portfolio is able to generate, the risks relative to the liabilities of the system must be taken into consideration. Despite MOSERS' infinite time horizon, it must not be overlooked that there are benefits to be paid in the short run. In addition, the "cost of volatility" within the portfolio must not be underestimated as volatility has a dramatic impact on the contribution rate and thus the state's ability to fund the plan going forward.

## Roles and Responsibilities

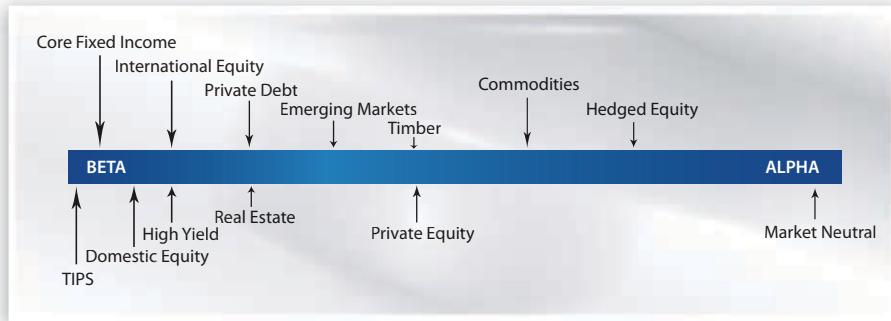
### *Board of Trustees*

The board of trustees bears the ultimate fiduciary responsibility for the investment of system assets. Members of the board must adhere to state law and prudent standards of diligence with respect to their duties as investment fiduciaries. Accordingly, they are required to discharge their duties in the interest of plan participants. They must also "act with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with those matters would use in the conduct of a similar enterprise with similar aims."<sup>2</sup> Specifically related to investments, the board is charged with the duties of establishing and maintaining broad policies and objectives for the investment program along with the recommendations of staff and the external asset consultant.

### *Executive Director*

The executive director is appointed by and serves at the pleasure of the board. The board has given the executive director broad authority for planning, organizing, and administering the operations and investments of the system under broad policy guidance from the board. Specifically with regard to investments, the executive director is broadly

## Continuum of Beta vs. Alpha



<sup>2</sup> Section 105.688, RSMo - Investment Fiduciaries, Duties.

responsible for the oversight of the investment program. The executive director must ensure the system assets are invested in accordance with the board's policies and that internal controls are in place to safeguard system assets. The executive director must also certify that all manager hiring and firing decisions were made in accordance with the board's governance policy. In addition, the executive director certifies strategic allocation decisions made by the CIO and external asset consultant.

### ***Chief Investment Officer and Internal Staff***

The CIO serves at the pleasure of the executive director, yet has a direct line of communication with the board on investment-related issues. The CIO has primary responsibility for the overall direction of the investment program. The CIO works with the external asset consultant and executive director in advising the board on policies related to the investment program. The CIO has primary responsibility to make hiring and firing decisions related to money managers with the approval of the external asset consultant. The CIO is also charged with the responsibility of making strategic allocation decisions with the approval of the external asset consultant. Other responsibilities of the CIO include monitoring the investment of system assets, oversight of external money managers and the internally managed portfolios, and keeping the board apprised of situations, which merit their attention. The internal investment staff is accountable to the CIO.

### ***External Asset Consultant***

Summit Strategies Group of St. Louis, Missouri, serves as the system's external asset consultant. The external asset consultant serves at the pleasure of the board. The primary duties of the external asset consultant are to advise the board on policies related to the investment program and to provide a third-party perspective and level of oversight to the system's investment program. The external asset consultant must also approve all manager hiring and firing decisions and strategic allocation decisions made by the CIO. The external asset consultant also provides advice and input to the CIO and internal investment staff on investment-related issues and money manager searches.

### ***Chief Auditor***

The chief auditor reports directly to the executive director and, if in the opinion of the chief auditor circumstances warrant, may report directly to the board. The chief auditor is independent of the system's investment operations and, among other things, is responsible for providing objective audit and review services for the investment operations. It is the chief auditor's objective to promote adequate and effective internal controls at a reasonable cost, which results in suggested improvements that will lead to economies and efficiencies in the system's investment operations.

### ***Master Custodian***

BNY Mellon of Boston, Massachusetts serves as the master custodian of the system's assets, except in cases where investments are held in partnerships, commingled accounts, or unique asset classes where it is impossible for them to do so. The master custodian is responsible for maintaining the official book of records, providing performance reports, and serving as an additional layer of risk control in the safekeeping of system assets.

### ***Asset Allocation***

The system's asset allocation is regarded as one of the most important decisions in the investment management process. The current asset allocation is designed to achieve the long-term required return objectives of the system, given certain risk constraints. The current asset allocation reflects the need for a diversified portfolio, which will perform well in a variety of economic conditions and will help reduce the portfolio's overall volatility. In determining the optimum mix of assets, the board considers five factors:

- The expected rate of return for each asset class.
- The expected risk of each asset class.
- The correlation between the rates of return of the asset classes.
- The investment objectives and risk constraints of the fund.
- The impact of the portfolio's volatility on the contribution rate.

The policy allocation as of June 30, 2009, and policy benchmarks are illustrated in the table below.

Asset Class	Policy Benchmark Weight	Allocation Range	Policy Benchmark
<b>Public Equity</b>	<b>45.0%</b>		<b>MSCI ACWI</b>
Domestic	Benchmark weight <sup>3</sup>	+/- 10%	
International developed equity	Benchmark weight <sup>3</sup>	+/- 10%	
Emerging market equity	Benchmark weight <sup>3</sup>	+/- 5%	
<b>Public Debt</b>	<b>30.0%</b>		<b>Blended Return</b>
Core fixed income	10.0%	5.0% - 15.0%	Barclays Aggregate
TIPS	10.0%	5.0% - 15.0%	Barclays TIPS
High yield bonds	5.0%	0.0% - 10.0%	Barclays High Yield
Market neutral	5.0%	0.0% - 10.0%	T-Bills + 4%
<b>Alternatives</b>	<b>25%</b>		<b>Blended Return</b>
<b>Real assets</b>	<b>15.0%</b>	<b>10.0% - 20.0%</b>	<b>Blended Return<sup>4</sup></b>
Commodities	3.0%		GSCI
Timber	6.0%		NCREIF Timber
REITS/private RE	6.0%		Wilshire REITs
<b>Private investments</b>	<b>10.0%</b>	<b>5.0% - 15.0%</b>	<b>S&amp;P 500 + 3%</b>
Private equity	7.5%		
Private debt	2.5%		

While the board maintains a set policy allocation mix, they have taken steps to provide flexibility by granting authority to the CIO, with the approval of the external asset consultant and certification of the executive director, to make strategic allocation decisions based upon expectations for each sub-asset class. This flexibility has allowed the system to take advantage of changing market conditions. The board has placed ranges on the sub-asset class allocations in order to maintain appropriate risk controls. These ranges are included in the table above.

## Rebalancing

It is the responsibility of staff to ensure that the asset allocation adheres to the system's rebalancing policy. Staff has engaged NISA Investment Advisors, LLC of St. Louis, Missouri, to assist in the oversight and implementation of the rebalancing policy. MOSERS utilizes a combination of cash market and exchange traded futures transactions to maintain the total fund's allocation at the broad policy level. Month-end reviews are conducted to bring the portfolio back within allowable ranges of the broad policy targets.

## Risk Controls

MOSERS' investment program faces numerous risks; however, the primary risk to MOSERS is that the assets will not support the liabilities over long periods of time. In order to control this risk and numerous other risks that face the system, the board has taken the following steps, on an ongoing basis, to help protect the system:

- Actuarial valuations are performed each year to ensure the system is on track to meet the funding objectives of the plan. In addition, every five years an external audit of the actuary is conducted to ensure that the assumptions being made and calculation methods being utilized are resulting in properly computed liabilities.
- Asset/liability studies are conducted at least once every five years. The purpose of these studies is to ensure that the current portfolio design is structured to meet the system's liabilities. During these studies, investment expectations are also reexamined in more detail.
- A governance policy, which incorporates investment limitations, is in place to ensure that board policies are clearly identified. Within these documents, the desired outcomes are outlined, individuals are identified as to their responsibility for particular areas of the portfolio's management, and details are lined out as to how the outcomes will be measured by the board. Reporting requirements are clearly identified to ensure appropriate checks and balances are in place. In addition, annual performance audits are conducted to ensure the measurement tools and methodology being utilized to gauge performance are proper.

<sup>3</sup> The public equity sub-asset class target allocations are not static weights. The weights float based upon capitalization of the MSCI ACWI benchmark.

<sup>4</sup> The policy benchmark is based upon the blending of GSCI, NCREIF Timber, and Wilshire REITs at their policy benchmark weights.

## Performance Objectives and Monitoring Process

Generating returns net of expenses equaling the RRO of 5% plus inflation remains the primary performance objective for the total fund over the long term. The reason for the long-term focus on this objective is to preclude the temptation to overreact to events in the marketplace that have no relevance in the management of the relationship between the system's assets and liabilities. The resulting dilemma is the conflicting need to evaluate investment policy implementation decisions over shorter time frames while maintaining the longer-term focus necessary to manage and measure the fund's performance relative to the RRO. To address this problem, the board evaluates performance relative to policy and strategy benchmarks, which help to evaluate the board's broad policy decisions and the staff and external consultant's implementation decisions. Policy benchmarks measure broad investment opportunities of each sub-asset class in which MOSERS has chosen to invest. The strategy benchmarks represent decisions made by the CIO to strategically deviate from the policy asset allocation for each sub-asset class. The return of the strategy benchmarks are determined based upon the actual weight of the asset class multiplied by the appropriate benchmark.

The policy and strategy benchmarks are used in the following manner to evaluate decisions made by the board and staff:

- **Board Decisions:** The value added through board policy decisions is measured by the difference between the total fund policy benchmark return and the RRO. This difference captures the value added by the board through their policy asset allocation decisions relative to the return necessary to fund the system's liabilities. A policy benchmark return greater than the RRO reflects value added through board decisions. A policy benchmark return less than the RRO reflects losses or shortfalls in performance in funding the liabilities. These policy decisions are measured over long periods of time.
- **CIO and External Asset Consultant Decisions:** There are two components to decisions made by the CIO and external asset consultant, which are monitored by the board on an ongoing basis. These include 1) strategic sub-asset class allocation decisions, and 2) implementation decisions.

Strategy decisions are sub-asset class allocation choices made by the CIO with the approval of the external asset consultant and the certification of the executive director to deviate from the policy benchmark weight. The value added through these decisions to overweight or underweight these sub-asset classes is measured by the difference between the strategy benchmark return and the policy benchmark return. This difference captures the value added by the CIO through sub-asset class strategic decisions relative to the board's broad policy allocation decisions. A strategy benchmark return greater than the policy benchmark return reflects value added through the sub-asset class allocation decisions. A strategy benchmark return less than the policy benchmark return reflects losses to the fund's performance based upon strategy decisions. Strategy decisions should be measured over all periods of time with majority weight placed on outcomes that have occurred over a market cycle.

Implementation decisions are money manager selection choices made by the CIO with the approval of the external asset consultant and the certification of the executive director that the decision was made in accordance within the board's adopted governance policy. The value added through these decisions is measured by the difference between the actual portfolio return and the strategy benchmark return. This difference captures the value added through these manager selection decisions. An actual portfolio return greater than the strategy benchmark return reflects value added through these manager selection decisions. An actual portfolio return less than the strategy benchmark return reflects losses to the fund's performance based upon implementation decisions. Implementation decisions should be measured over all periods of time with a majority weight placed on outcomes that have occurred over a market cycle.

The board receives performance information on a quarterly basis to help ensure adequate monitoring of the fund's overall performance objectives.

## Asset Classes

At the broad asset class level, policy and strategy benchmarks have been established to measure board, strategic, and implementation decisions. At the manager level, performance is measured against appropriate benchmarks for each particular investment mandate. Investment guidelines have been established for each manager outlining specific expectations for each portfolio. Many managers are employed with performance-based fee structures, which help to align the manager's interest with the total fund objectives.

# Total Fund Review

As of June 30, 2009, the MOSERS investment portfolio had a market value of \$6.2 billion. The graph to the right illustrates the growth of MOSERS' portfolio since the system's inception.

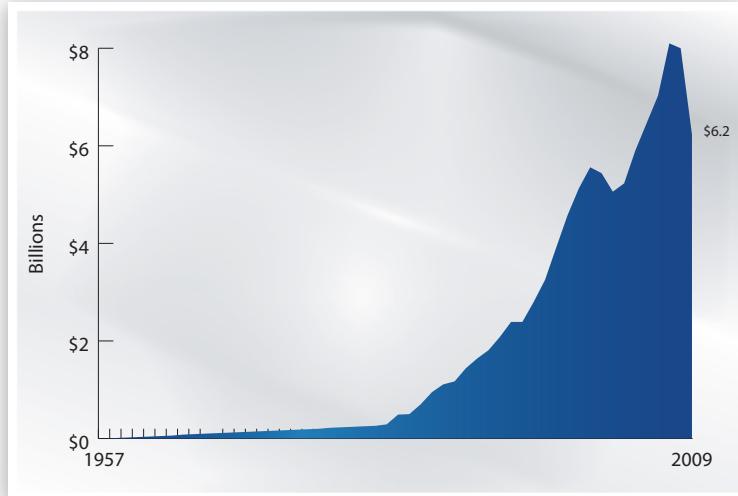
## Investment Performance

The extreme market dislocation that has occurred in the economy and the financial markets over the past 24 months had its impact on all investors, including MOSERS. MOSERS' investment return for the year ended June 30, 2009, net of fees, was -19.1%. During the year when large unexpected shocks hit the financial markets, all assets perceived to be risky traded down in unison. During extreme periods like this, diversification proves of only marginal benefit. Performance for the fiscal year may be attributed to the various asset classes. The public equity portfolio returns were -24.7%, the public debt portfolio returns were -5.3%, and the alternatives portfolio produced results of -22.8%. The table to the right illustrates each sub-asset classes' contribution to the total return.

## Investment Performance vs. the Required Rate of Return

The first measure of comparison for the portfolio's investment performance is to determine how well the fund performed relative to the required rate of return. The RRO is the rate established by the board that MOSERS' investment portfolio must earn in order to meet future plan obligations after accounting for inflation. The funding objective is to produce a return that equals RRO (5%) plus inflation. The best known measure of inflation is the Consumer Price Index (CPI).<sup>5</sup> For purposes of examining fund performance relative to the required rate of return, we are interested in long periods of time. Given the volatile nature of the investment markets, we should not expect the portfolio to always meet the required rate of return in the short term. The bar chart to the right reflects that MOSERS' investment returns have exceeded the required rate of return over the 15-year period ended June 30, 2009.<sup>6</sup>

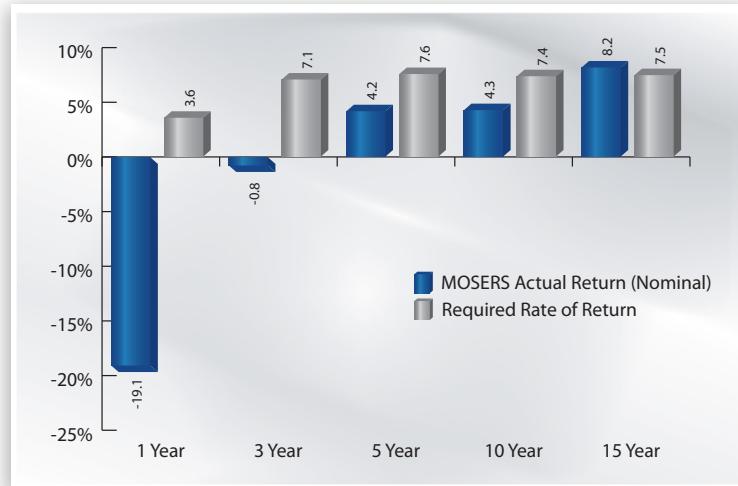
Total Fund Growth



Sub-Asset Class Returns for Fiscal Year Ended June 30, 2009

Asset Class	Fiscal Year Return	Contribution to Total Return
<b>Total public equity</b>	(24.7)%	(11.3)%
Domestic equity	(27.8)	(6.7)
International developed equity	(14.5)	(2.2)
Emerging markets	(27.3)	(2.0)
Credit opportunities	(25.9)	(0.4)
<b>Total public debt</b>	(5.3)%	(1.4)%
Core fixed income	(3.7)	(0.4)
TIPS	(1.0)	0.1
High yield	(11.0)	(0.3)
Market neutral	(11.1)	(0.8)
<b>Total alternative investments</b>	(22.8)%	(5.6)%
Real assets	(19.8)	(3.2)
Commodities	(58.4)	(2.0)
Real estate	(24.4)	(1.8)
Timber	8.3	0.6
Private investments	(27.3)	(2.4)
Private equity	(29.4)	(1.9)
Private debt	(26.8)	(0.5)
Cash and securities lending	N/A	(0.8)
<b>Total fund</b>	(19.1)%	

Total Fund Actual Return vs. Required Rate of Return



<sup>5</sup> CPI Source: United States Department of Labor, Bureau of Labor Statistics (not seasonally adjusted).

<sup>6</sup> Performance returns were calculated using a time-weighted rate of return on market values.

## Investment Performance vs. Benchmark Comparisons

In addition to measuring performance relative to the RRO, the board also compares fund returns to the following two market benchmarks: the policy benchmark and the strategy benchmark.

The policy benchmark provides an indication of the returns that have been achieved (excluding transaction costs) by a portfolio invested passively in the broad market with percentage weights allocated to each asset class in MOSERS' policy asset allocation. The strategy benchmark is more narrowly defined and focuses on sub-asset class allocation decisions made by the CIO.

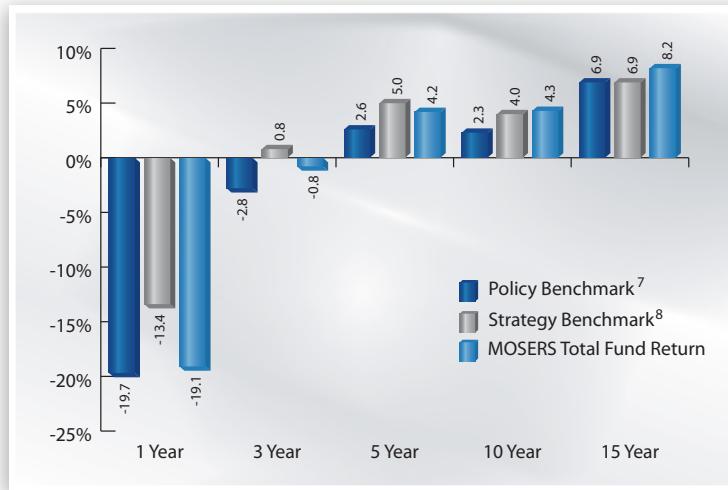
By comparing the policy benchmark to the strategy benchmark, the board is able to determine the value added through strategic decisions made by the CIO. Value is created when the strategy benchmark returns exceed the policy benchmark returns. Returns for the total fund versus these benchmarks are displayed in the bar graph to the right.

Similarly, by comparing the actual return to the strategy benchmark, the board will over the long term, be able to judge the success or failure of the staff and the consultant in implementing the CIO's strategic decisions. The primary implementation decision is in determining which managers the fund should employ. Value is added from manager selection when the total fund return exceeds the strategy benchmark return.

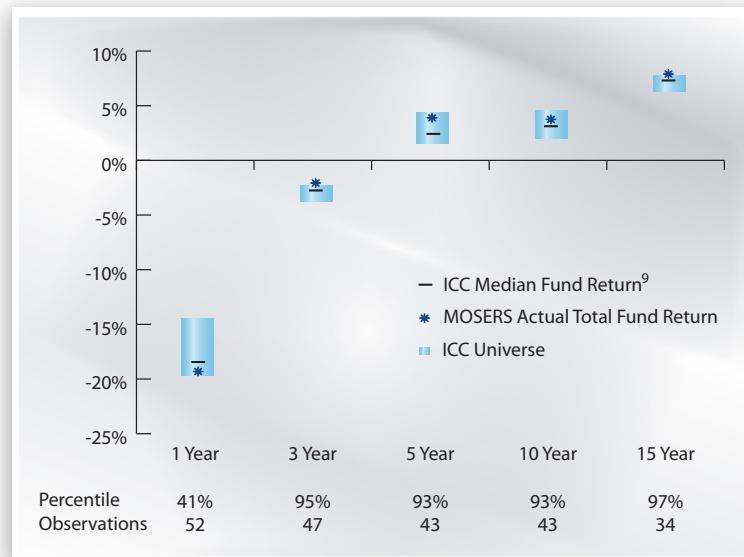
## Investment Performance vs. Peer Universe

To a lesser extent, the board compares total fund performance to the returns generated by a peer group of public pension funds and compiled by the Independent Consultants Cooperative (ICC). For the past 3-, 5-, 10-, and 15-year periods, MOSERS' total fund return outperformed at least 93% of the ICC universe of public pension plans with assets in excess of \$1 billion. MOSERS' total fund performance within the ICC universe is provided in the graph above. MOSERS' 1-year performance is slightly below median due to a relatively larger allocation to alternative investments, many of which trailed traditional stocks and bonds for the first time in several years.

Total Fund Actual Return vs. Benchmarks



Total Fund Actual Return vs. ICC Universe



<sup>7</sup> As of 6/30/09, the policy benchmark was comprised of the following components: 45% total public equity policy benchmark, 30% total public debt policy benchmark, and 25% total alternative investments policy benchmark.

<sup>8</sup> As of 6/30/09, the strategy benchmark was comprised of the following components: 47.3% total public equity strategy benchmark, 29.3% total public debt strategy benchmark, and 23.4% total alternative investments strategy benchmark. A strategy benchmark for the 15-year period is not available.

<sup>9</sup> The ICC is a cooperative of 17 independent consultants from across the U.S. and one major custodial bank that collectively provide performance data to create the universe of funds with assets in excess of \$1 billion. Note that performance within this universe is captured gross of fees.

## Total Fund Asset Allocation Overview

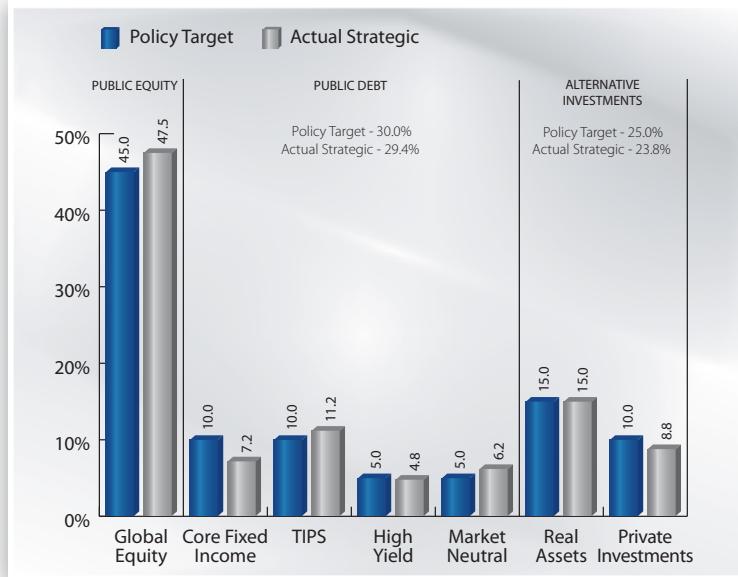
As of June 30, 2009, the board's broad policy allocation mix was 45% public equity, 30% public debt, and 25% alternative investments. The policy target as of June 30, 2009, for each sub-asset class, along with the actual strategic allocation to each type of investment is shown in the bar graph to the right.

A formal asset/liability study is conducted every five years to examine the portfolio's ability to generate the required rate of the return given return expectations from the various asset classes represented in the portfolio and to lower the total portfolio volatility. The most recent study conducted in July 2007, concluded that the MOSERS' portfolio could be further diversified by thinking more globally and could entertain more illiquid assets in an effort to enhance risk-adjusted performance, ultimately leading to

an acceptable contribution level and reduced contribution volatility. To that end, the board approved a public equity benchmark change to more global benchmark, MSCI ACWI, and a 5% public equity allocation reduction with a corresponding 5% increase to alternative investments.

The asset allocation is built upon the belief that diversification is critical. The table below reflects the asset classes and their correlation to each other.

## Total Fund Policy vs. Actual Allocation (As a Percentage of the Total Fund)



Total Fund Correlation Table - 5 Years

	Global Equity	Core Fixed Income	TIPS	High Yield	Market Neutral	Real Assets	Private Investments
Global equity	1.0						
Core fixed income	0.4	1.0					
TIPS	0.4	0.8	1.0				
High yield	0.6	0.3	0.4	1.0			
Market neutral	0.7	0.5	0.3	0.7	1.0		
Real assets	0.5	0.5	0.3	0.3	0.5	1.0	
Private investments	0.8	0.4	0.2	0.5	0.6	0.6	1.0

The board maintained the flexibility granted to the CIO to make strategic decisions related to the allocation subject to predefined sub-asset class ranges. A strategic decision should be thought of as any decision that might cause MOSERS' actual portfolio to differ from the policy asset allocation. This has allowed MOSERS to capitalize on investment opportunities at the margin by overweighting asset classes that are viewed as "cheap" relative to their historical norm and underweighting asset classes that are "expensive" relative to their historical norm. Since being granted this authority in 2002, the ability to make strategic asset allocation decisions has added 1.4% of return annually, or approximately \$613 million in additional assets annually to the portfolio.

## Statistics

The table below displays the statistical performance data (net of fees) of the total fund as of June 30, 2009.

### Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized return	(19.1)%	(0.8)%	4.2%	4.3%	8.2%
Annualized standard deviation	16.8%	11.1%	9.4%	10.0%	9.7%
Sharpe ratio	(1.2)	(0.4)	0.1	0.1	0.3
Excess return*	0.6%	2.1%	1.6%	2.1%	1.4%
Beta*	0.7	0.7	0.7	0.8	0.9
Annualized alpha*	(7.0)%	1.0%	2.2%	2.3%	2.1%
Correlation*	1.0	1.0	1.0	1.0	1.0

\*As compared to total fund policy benchmark.

## Schedule of Investment Results

1-, 3-, 5-, 10- and 15-Year Periods

	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>15 Year</b>
<b>Total fund*</b>					
MOSERS	(19.1)%	(0.8)%	4.2%	4.3%	8.2%
Custom benchmark	(19.7)%	(2.8)%	2.6%	2.3%	6.9%
<b>Public equity</b>					
MOSERS	(24.7)%	(3.9)%	3.1%	2.6%	8.3%
Public equity composite benchmark	(29.3)%	(7.8)%	0.2%	(0.2)%	6.4%
<b>Public debt</b>					
MOSERS	(5.3)%	3.0%	3.9%	6.7%	7.2%
Public debt composite benchmark	2.5%	5.8%	5.4%	7.5%	7.6%
<b>Alternative investments</b>					
MOSERS	(22.8)%	(0.1)%	5.8%	N/A	N/A
Alternatives composite benchmark	(27.0)%	(5.6)%	2.3%	N/A	N/A

\* Time-weighted rates of return on market values adjusted for cash flows.

As of June 30, 2009, the total fund policy benchmark was comprised of the following components: 45% total public equity policy benchmark, 30% total public debt policy benchmark, and 25% total alternative investments policy benchmark. The individual asset class benchmarks as listed below are used to generate the total fund policy benchmark.

- The public equity policy benchmark was based on the capitalization of the MSCI ACWI benchmark were 45.7% MSCI World Ex U.S. Net, 42.3% MSCI U.S. Net, and 12% MSCI Emerging Markets Net.
- The public debt policy benchmark was comprised of 33.3% Lehman Aggregate, 33.3% Lehman U.S. TIPS, 16.7% Lehman High Yield, and 16.7% T-Bills + 4%.
- The alternative investments policy benchmark was comprised of 40% S&P 500 + 3%, 24% Wilshire REIT, 24% NCREIF Timber, and 12% Goldman Sachs Commodity Index.

# Investment Manager Fees

For the Year Ended June 30, 2009

Missouri State Employees' Retirement System

Fiscal Year 2009

Investment Section

	Total Fees Paid	Change in Incentive Fee Accrual
<b>Public equity managers</b>		
Bayview Asset Management	\$ 1,221,573	
BlackRock Financial Management	639,656	
The Blackstone Group	2,813,461	
Blakeney Management	2,023,461	
Eminence Capital	147,214	
Fortress Investment Group	120,653	
Grantham, Mayo, and Van Otterloo & Company	982,062	
Harvest Fund Advisors	242,941	
Legg Mason Capital Management	784,726.00	
Leuthold Weeden Capital Management	396,188.78	
Mastholm Asset Management	613,458.86	
Morant Wright Management	866,125.00	
Nippon Value Investors	690,151	
Silchester International Investors	1,867,827	
Trust Company of the West	169,317	
Total public equity managers	13,578,814	0
<b>Public debt managers</b>		
Bayview Asset Management	610,786	
BlackRock Financial Management	843,966	
NISA Investment Advisors	153,133	
Total public debt managers	1,607,885	0
<b>Alternative investment managers</b>		
Actis Capital	1,441,810	
Alinda Capital Partners	678,680	
Axiom Asia Private Capital	75,616	
Bayview Asset Management	610,787	
The Blackstone Group	2,946,661	
Bridgepoint Capital Limited	554,273	
Bush O'Donnell Investment Advisors	98,470	
The Campbell Group	489,678	
CarVal Investors	687,416	
Catterton Partners	682,854	
Development Partners	710,918	
DDJ Capital Management	750,000	(1,063,515)
Garnet Sky GFP Coinvestment	(255,805)	
Global Forest Partners	580,055	
JLL Partners	(212,656)	
Merit Energy Company	\$49,556	
MHR Fund Management	720,481	(2,948,925)

	Total Fees Paid	Change in Incentive Fee Accrual
New Mountain Capital	737,476	
NISA Investment Advisors	624,146	
Oaktree Capital Management	4,011,491	(1,357,663)
OCM GFI Power Opportunity	3,987,141	
Parish Capital Advisors	613,180	
Relational Investors	468,562	
Resource Management Services	717,192	
Silver Lake Partners	(1,788,820)	
Trust Company of the West	1,395,408	
Veritas Capital Partners	1,548,261	
Total alternative investment managers	22,922,830	(5,370,103)
<b>Alpha pool managers</b>		
Aetos Capital	1,023,797	
AQR Capital Management	1,212,880	
Barclays Global Investors	982,052	
Bridgewater Associates	2,886,100	
Pacific Alternative Asset Management Company	1,362,159	
The Blackstone Group	2,862,521	
Davidson Kempner Capital Management	154,427	
HBK Investments	205,985	
Highside Capital Management	302,005	
King Street Capital Management	684,530	
Silver Point Fund	148,868	
Wellington Management	33,826	
TPG-Axon Capital Management	369,624	
Viking Global Investors	203,593	
Total alpha pool managers	12,432,367	0
<b>Other managers</b>		
NISA Investment Advisors	606,062	
MOSERS Inc.	63	
Total other managers	606,125	0
Grand totals	\$51,148,021	\$(5,370,103)

Amounts do not include reimbursed administration fees of \$75,702.

# Schedule of Investment Portfolios by Asset Class

As of June 30, 2009

Missouri State Employees' Retirement System | Fiscal Year 2009 | Investment Section

	Fair Value	Percentage of Investments at Fair Value
<b>Public global equity</b>	\$2,955,681,724	47.5%
<b>Public debt</b>		
Core fixed income	445,365,111	7.2
High yield bonds	299,597,022	4.8
TIPS	699,994,463	11.2
Market neutral	384,431,304	6.2
Total public debt	<u>1,829,387,900</u>	<u>29.4</u>
<b>Alternative investments</b>		
Real assets	935,228,681	15.0
Private investments	<u>548,812,042</u>	<u>8.8</u>
Total alternative investments	<u>1,484,040,723</u>	<u>23.8</u>
<b>Other portfolios</b>		
Other investments	(53,698,205)	(0.9)
Cash reserve*	9,592,663	0.2
Total other	<u>(44,105,542)</u>	<u>(0.7)</u>
<b>Grand total</b>	<b>\$6,225,004,805</b>	<b>100.0%</b>
 <i>Reconciliation to Statement of Plan Net Assets</i>		
Total portfolio value	\$6,225,004,805	
STIF	(608,718,714)	
Uninvested cash	(24,606,428)	
Cash collateral for futures	(24,978)	
Interest and dividend receivable	(32,387,305)	
Variation margin	3,536,381	
Foreign currency fluctuation	43,591	
AR securities sold	(9,934,854)	
AP securities purchased	23,830,665	
Incentive fees payable	11,857,922	
Security lending liability	56,210,424	
Investments per <i>Statement of Plan Assets</i>	<u>\$5,644,811,509</u>	

\* Cash reserve is not reflected as an individual asset class; therefore, minor rounding differences exist between the percentages reported in this schedule and other information contained in this section.

# Public Equity Asset Class Summary

As of June 30, 2009, the public equity portfolio had a market value of \$2.9 billion, representing 47.5% of the total fund. Performance for the fiscal year was -24.7% net of fees and expenses.

## Highlights

There was little change in the structure of the portfolio during the very difficult year for equities worldwide. MOSERS' board extended indefinitely the period of time in which opportunistic credit instruments can be invested within the equity allocation up to a limit of 10% of the total fund. Investments in credit are judged against the equity policy benchmark and expected to take advantage of opportunities arising from dislocated credit markets. One additional manager specializing in mortgage credit was hired during the fiscal year to significantly increase the exposure to residential mortgages. This increase was based on a belief that U.S. policymakers had developed an avowed goal to fix the mortgage problem, a factor that could be expected to be positive for pricing.

## Portfolio Structure

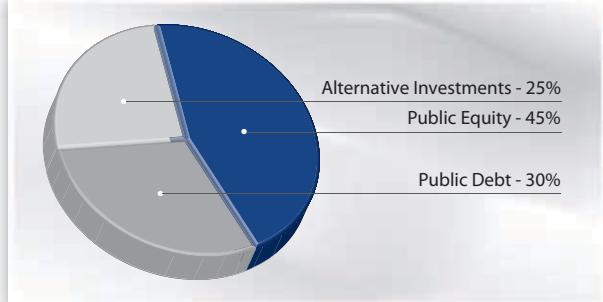
The public equity portfolio has a target allocation of 45% of the total fund. This portfolio is benchmarked against the global index. As of June 30, 2009, the portfolio includes domestic equity, hedged equity, international developed equity, emerging markets equity, and credit opportunities. The bar chart to the right illustrates the actual allocation relative to the board's policy benchmark for public global equity. Differences reflect the CIO's strategic decisions to overweight as of June 30, 2009. The addition of credit opportunities in FY08 does not change the total policy allocation to public equity and, although these strategies are largely comprised of debt instruments, the investments will be judged against the global equity benchmark. This allocation is viewed as a strategic move out of equity and into an area that is believed to offer equity like returns with substantially less risk. As of June 30, 2009, such credit exposure represented approximately 6.2% of the total fund, and consisted of bank loans, residential mortgages, and master limited partnerships. In FY09, additional investments were made in residential mortgages while eliminating exposure to AAA commercial mortgages.

## Market Overview

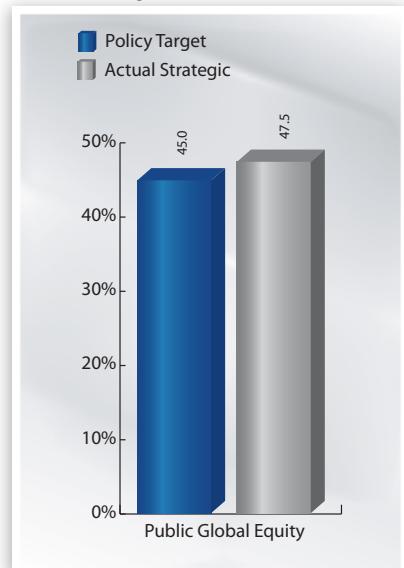
The MSCI All Country World Net Index returned -29.3% for the fiscal year. The poor performance was due to negative returns in both domestic and international markets. The markets were impacted by a global financial crisis caused by excess leverage. The problems in the financial sector caused a global credit crisis which impacted companies in all sectors and regions of the world. The global economy went into a deep recession taking the equity markets down even further. Governments decided to step in to save financial institutions in an effort to keep the situation from getting even worse. What started as a real estate bubble bursting ended up impacting nearly every equity market in the world.

The U.S. markets were -27.1% for the year. Problems with financial companies led the markets down. The problems in the real estate markets and loans backing real estate caused problems for nearly all financial assets. When the government decided not to bail out Bear Sterns, debt markets froze up and equity markets continued to slide. Healthy banks were pushed to buy failing institutions by the federal government. The U.S. auto industry required government bailouts to survive the steep reduction in demand for automobiles. In the end, the U.S. government became the biggest owner of General Motors, an idea that was virtually unheard of just a few years ago.

Public Equity Policy Allocation



Total Fund Policy vs. Actual Allocation  
(As a Percentage of the Total Fund)



As of now, it appears that the bottom of the market may have been reached in early March 2009. The S&P 500 Index reached a low of 676 in March, down well over 50% from the 1565 level reached in October 2007. From that low until June 30, 2009, the index was up 36.9%. This solid performance for three plus months left the index -27% for the year.

Although the financial sector seemed to get the most attention, two other sectors actually performed worse for the fiscal year. Energy was down over 41% and materials were down nearly 39%. The price of oil led the charge down in energy. From the high of \$140 per barrel to a low of \$35, oil was truly a wild card. The global slowdown followed the historic run-up from the first half of 2008. Materials were also crushed by the slowing world economy. In early 2008 it seemed that all commodities and building materials were in short supply, driving prices to record highs. Within just a few short months, prices had collapsed as the financial crisis had pulled all financing out of the system and projects all over the world were stopped in progress and very few new projects were started. Consumer staples and health care were the two sectors that held in the best losing only 10% and 11% respectively. The companies that supply the consumers with needed items on a daily basis were seen as some of the only places to hide during the downturn.

The emerging markets told an even greater rollercoaster ride story. After losing more than 54% in the first eight and one half months of the fiscal year, they returned over 56% in the final three and one half months of the fiscal year. As impressive as this run was, it still left the emerging markets down over 27% for the entire twelve month period. As has often been the case, the emerging markets fall further than the developed and then recover more quickly. This time it is hoped that the long-term growth in many emerging economies will drive these markets higher. It is believed that the credit problems experienced in the developed markets were not as severe in the emerging markets. While it appears that these markets are in a stronger position than in the past, it must be remembered that they are still emerging markets with inherent uncertainty due to politics, social issues and the economy.

The low and sometimes nonexistent liquidity in the fixed income market, particularly within the non-agency mortgage sector, created a favorable environment for increasing the credit opportunity allocation. Debt instruments in some segments of the market have been trading at unprecedented low levels. This condition is a result of both fundamental and technical issues. Staff believes that deploying assets in a timely manner in these areas will lead to returns competitive to equities and with lower risk due to the finite life of debt instruments' and quantifiable default adjusted cash flows including a par payment at maturity. If conditions in the general economy degrade to the point that these payments are not being made, it is expected that stocks will be going through a period of more severe losses.

The economy and markets were inflated over the last several years by cheap leverage that impacted consumers, corporations and financial assets. Most market watchers are concerned with how the economy and companies will be able to grow without this cheap source of financing. Inflation is also a big concern as countries all over the world have spent hundreds of billions of dollars in an effort to keep the economy from going into a depression. Many countries were already facing challenging demographics and deficits before the recent recession. It will be an interesting challenge to keep economies growing without introducing high inflation. It does not appear that high real returns from equities should be expected in the near term. The current environment involves low interest rates and average to slightly higher than average valuation this makes the prospect for above average returns from equity seem remote.

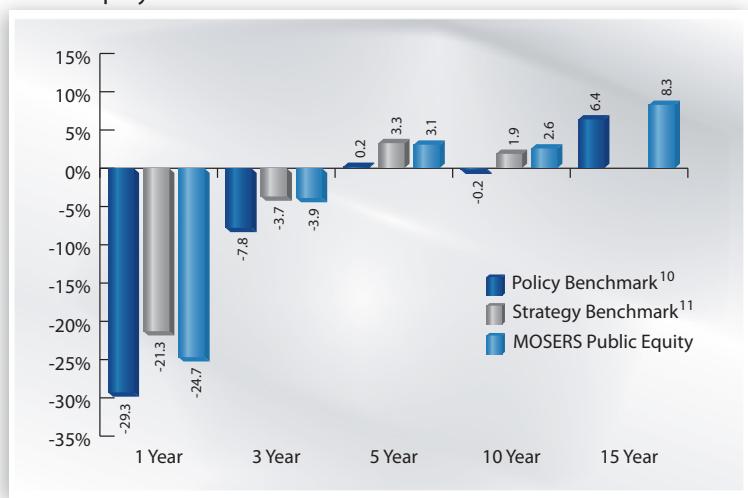
## Performance

As illustrated in the bar chart to the right, the public equity portfolio returned -24.7% for the fiscal year, exceeding the policy benchmark

<sup>10</sup> As of 6/30/09, the public equity policy benchmark was comprised of 100% MSCI All Country World Index.

<sup>11</sup> As of 6/30/09, the public equity strategy benchmark was comprised of the following components: 43.1% domestic consisting of S&P 500, Russell 3000, S&P 400, NASDAQ 100, MSCI U.S. Net, and hedge equity strategy benchmark; 34.3% international developed consisting of MSCI World Ex U.S. Net and TOPIX USD Index; 10% emerging markets consisting of MSCI EMF Net and Hang Seng Index; and 12.7% credit opportunities consisting of CSFB Leveraged Loan Index, S&P MLP TR Index, ABX AAA Price Index, U.S. High Yield Ba/B 1% Issuer Cap, and actual return of Bayview. A strategy benchmark for the 15-year period is not available.

Public Equity Returns vs. Benchmarks



return of -29.3%, and lagging the strategy benchmark return of -2.3%. The defensive nature of the equity portfolio paid dividends during the down year in the markets. The positive performance of the actual portfolio relative to the policy benchmark shows value added by staff and the external asset consultant through strategic decisions and manager selection decisions. The strategy benchmark is compared to the policy benchmark to capture the value added by strategic allocation decisions. In FY09, strategic decisions added to performance primarily as a result of a decision to include hedged equity and to overweight Japanese equities. The credit opportunities portfolio returned -26% for the fiscal year as significant deleveraging and worsening credit fundamentals impacted the portfolio, but its outperformance against most equity benchmarks tended to validate the more defensive nature of credit.

Within public equity, international developed markets were the bright spot with a return of -14.5% as reflected in the table on page 77.

## Top 10 Holdings

The top ten holdings within the public equity portfolio as of June 30, 2009, are illustrated below.

### Ten Largest Holdings

Holdings	Market Value	Percent of Total MOSERS Public Equity Portfolio
Actelion	\$8,008,294	0.27%
BNP Paribas	7,427,584	0.25
Nomuria Holding NPV	7,335,575	0.25
Credit Suisse Group AG	6,991,568	0.24
Petroleo Brasileiro SA	6,958,404	0.24
Nippon Electric Glass	6,420,117	0.22
Xstrata	5,855,105	0.20
Hengan International Group Co.	5,814,988	0.20
BG Group PLC ORD	5,788,931	0.20
HSBC Holdings ORD	5,542,877	0.19

### Market Value

The equity allocation was \$2.9 billion, or 47.5% of the total fund as of June 30, 2009.

## Summary of Portfolio

MOSERS maintains a significant allocation to publicly traded shares of corporations around the world. Equity exposure is achieved through broadly diversified portfolios representing a variety of styles, sectors, market capitalizations, and an allocation to the beta/alpha program (see pages 105-106 for further details). Equity investments are made in the U.S., international developed, and emerging markets. The equity portfolio is expected to contribute significantly to the fund's achievement of a long-term real return in excess of the 5% objective set by the board due to equities' historic return premium over inflation. In addition, we would expect this portfolio to perform well in periods of falling inflation and rising growth and offer income potential through dividend payments. Included in the portfolio are hedged equity managers. These managers utilize skill-based investment strategies, which allow them to take advantage of periodic inefficiencies that may exist within the market. Hedged equity managers seek to produce consistent returns in various economic environments. The ultimate goal within the public equity portfolio is to provide downside protection in extended down equity markets. This portfolio targets about 40% of the U.S. equity market volatility which is expected to cushion fund returns during periods of negative returns from stocks. The credit opportunities portfolio should provide equity like returns based on the levels at which the assets are being purchased. In the event of a very difficult economy with high levels of defaults, staff believes that the equity markets would be harmed to a greater degree than the debt markets.

## Statistics

The table below displays the statistical performance data (net of fees) of the public equity portfolio as of June 30, 2009.

### Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
Annualized return	(24.7)%	(3.9)%	3.1%	2.6%
Annualized standard deviation	26.0%	17.2%	14.7%	15.4%
Sharpe ratio	(1.0)	(0.4)	0.0	0.0
Excess return*	4.6%	3.9%	3.0%	2.9%
Beta*	0.8	0.8	0.8	0.9
Annualized alpha*	(2.6)%	1.9%	2.8%	2.7%
Correlation*	1.0	1.0	1.0	1.0

\* As compared to the total equity policy

## Investment Advisors

As of June 30, 2009, MOSERS had contracts with 18 external investment advisors who manage 19 portfolios that comprise 72.9% of the equity portfolio. The remaining 27.1% of the portfolio is in the beta/alpha program.

In FY09, there were two managers hired and one terminated in the equity portfolio. Management expenses for these managers can be found on pages 82-83 under the total fund overview section of this report.

### Investment Advisors

Investment Advisors	Style	Portfolio Market Value
Legg Mason Opportunity Trust	Active all-cap	\$ 62,803,963
Legg Mason Value Trust	Active all-cap	39,144,016
Leuthold Weeden	Active all-cap	113,105,702
DG Capital	Active all-cap	109,905,400
Beta/alpha program U.S. equity	Active	652,447,443
Eminence Capital	Long/short equity	49,169,542
Blackstone Alternative Asset Management	Long/short equity	245,631,052
Beta/alpha program international equity	Active	120,055,101
Mastholm Asset Management	Active growth	281,068,477
Silchester International Investors	Active value	429,642,084
Morant Wright Management	Active	98,227,060
Nippon Value Investors	Active	86,234,529
Grantham, Mayo, Van Otterloo & Co.	Active growth	128,778,958
Blakeney Management	Active value	88,832,492
NISA Hang Seng Futures	Index	45,313,468
Beta/alpha program emerging markets	Index	27,308,136
Miscellaneous emerging markets	Index	117,181
Bayview Asset Management	Active mortgage	75,454,731
BlackRock Financial Management	Bank loans	87,639,961
Harvest Investment Advisors	Active MLP	28,944,248
Fortress Investment Group	Active mortgage	19,318,663
Trust Company of the West	Active mortgage	166,957,360
Total		<u>\$2,956,099,567</u>

## Brokerage Activity

The following brokerage activity occurred within the equity portfolio throughout the fiscal year:

### Brokerage Activity - Equity Portfolio

Brokerage Firm	Shares Traded	Dollar Volume of Trades	Commissions	
			Dollar Amount	Value Per Share
Weeden & Co.	12,295,772	\$ 293,169,374	\$ 245,936	\$0.02
Merrill Lynch Pierce Fenner, Wilmington	9,108,517	87,923,117	173,414	0.02
J.P. Morgan Securities Ltd., London	4,923,604	102,578,189	165,775	0.03
Credit Suisse, New York	7,914,784	82,921,048	152,890	0.02
Goldman Sachs Execution & Clearing, New York	8,997,439	293,214,226	150,345	0.02
Credit Suisse (Europe), London	5,472,900	69,958,304	132,282	0.02
Goldman Sachs & Co., New York	1,619,011	43,032,530	124,645	0.08
Calyon Securities (Setclear), New York	22,647,718	163,349,507	118,578	0.01
Sg Securities (London) Ltd., London	2,486,042	52,160,339	100,335	0.04
Sanford C. Bernstein & Co. Inc., London	2,912,000	52,136,116	91,917	0.03
Credit Agricole Cheuvreux,	2,092,182	46,910,293	90,221	0.04
Merrill Lynch Int'l., London Equities	2,792,259	46,737,483	88,493	0.03
Nomura Securities Int'l. Inc., New York	3,937,316	50,293,954	84,008	0.02
Merrill Lynch Pierce Fenner Smith Inc., New York	5,233,016	150,476,697	124,435	0.02
Neonet Securities Ab, Stockholm	10,490,800	181,777,824	73,410	0.01
J.P. Morgan Clearing Corp., New York	2,388,667	71,571,628	71,660	0.03
Union Bank Switzerland Securities, London	2,332,000	35,409,582	69,222	0.03
Sis Segainter settle Ag, Zurich	505,300	33,452,564	66,842	0.13
Mainfirst Bank Ag, Frankfurt	1,230,500	33,361,709	66,723	0.05
Credit Lyonnais Securities, Singapore	2,744,870	41,555,178	65,341	0.02
Lazard Capital Markets LLC, New York	1,095,395	40,025,440	60,025	0.05
Pershing LLC, Jersey City	1,863,910	71,715,544	55,727	0.03
J. P. Morgan Cazenove Ltd., London	2,153,100	26,932,874	52,608	0.02
Bank Am Bellevue, Zurich	371,081	25,504,747	52,239	0.14
Others (includes 124, each contributing less than 1%)	41,435,299	814,073,804	768,674	0.02
Total	159,043,482	\$2,910,242,071	\$3,245,745	0.02

The following fixed income brokerage activity occurred within the domestic equity portfolio throughout the fiscal year:

### Brokerage Activity - Domestic Equity Portfolio

Broker/Dealer Firm	Par Amount Traded	Market Value Traded	Percent of Total Trading Volume by Market Value
Citigroup	\$ 55,207,996	\$ 63,171,485	17.6%
Credit Suisse	72,186,028	56,824,658	15.8
Bank of America	37,402,201	32,511,175	9.0
Deutsche Bank	45,972,990	30,813,148	8.6
Morgan Stanley	33,214,401	28,823,505	8.0
J.P. Morgan	43,997,091	25,670,918	7.1
Goldman Sachs	68,026,014	22,586,657	6.3
UBS	13,375,879	18,395,698	5.1
R.W. Pressprich	33,490,886	14,609,160	4.1
Barclays	30,114,596	12,056,052	3.4
Greenwich	20,405,287	10,411,402	2.9
Baird	9,206,543	8,085,997	2.2
Cantor	6,413,378	5,485,034	1.5
MF Global	9,766,077	4,612,013	1.3
Guggenheim	7,575,181	4,397,622	1.2
Other (includes 11, each contributing less than 1%)	27,395,762	21,241,708	5.9
Totals	\$513,750,310	\$359,696,232	100.0%

## Soft Dollar Expenditures

In the fiscal year ended June 30, 2009, MOSERS' equity managers declared \$7,371 of the commissions generated were utilized to acquire a variety of services and research information. These expenditures, referred to as soft dollars (expendable excess commissions), are permitted under current Securities Exchange Commission (SEC) guidelines and represent less than 1% of MOSERS' agency commissions.

### Soft Dollar Expenditures

Types of Services Acquired	Commissions Used	Percentage of Total
Consulting/benchmarks	\$ 715	9.7%
Research services	5,365	72.8
Transaction cost analysis	165	2.2
Market research	1,126	15.3
Total	<u>\$7,371</u>	<u>100.0%</u>

# Public Debt Asset Class Summary

As of June 30, 2009, the public debt allocation had a market value of \$1.8 billion, representing 29.4% of the total fund. Performance for the fiscal year was -5.3% net of fees and expenses.

## Highlights

There were some modest tactical changes made to the public debt portfolio during the fiscal year. Here are a few of the highlights:

- Credit risk became a growing concern during the course of the fiscal year. Accordingly, the substantial overweight to treasuries that was initiated in 2007 was maintained, with the offsetting underweight coming primarily from investment grade corporate securities. Within high yield, a portion of the hedge implemented in 2007 on a significant portion of the portfolio to protect against credit deterioration was removed as spreads reached extreme levels in the fourth quarter of 2008.
- Given the extraordinarily stressful conditions in the housing sector and a belief that the pricing on certain mortgage securities had already discounted a depression-like scenario of defaults and loss severities, an investment was made in nonagency mortgages within the equity allocation that was partially funded by the sale of asset-backed and agency mortgage securities from the core fixed income allocation. Mortgage credit deterioration led the decline in corporate credit by a full six to nine months. There is a view in favor of mortgage risk over corporate risk in the belief that the first to decline is likely to be the first to recover. Additional support for that view is offered by the significant amount of government stimulus and programs directed at the mortgage sector. It is a primary focus of U.S. policymakers.

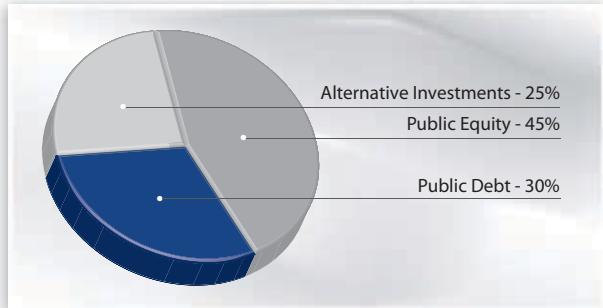
## Portfolio Structure

The public debt portfolio has a target allocation of 30% of the total fund. This portfolio is comprised of four sub-asset classes which include core fixed income, high yield bonds, Treasury Inflation Protected Securities (TIPS) and market neutral. The bar chart to the right illustrates the actual sub-asset allocations relative to the board's policy allocation for each of these sub-asset classes. Differences reflect the CIO's strategic decisions to overweight or underweight sub-asset classes as of June 30, 2009. These decisions are confined to pre-established ranges that have been set by the board.

## Market Overview

Fiscal year 2009 was dominated by the peaking of the financial crisis and the unprecedented government involvement in markets. As of June 30, 2008, the federal funds rate was 2% and the Federal Reserve Board's (Fed) concerns were biased towards upside risk to inflation but with continued concerns for the downside risk to growth. The Fed had to quickly change its policy stance as financial firms collapsed and the financial markets became extremely unstable. The Fed lowered the discount rate to a range from 0% to 0.25% by the December meeting. More important than rate reductions, the Fed, the FDIC and the U.S. Treasury put a number of significant programs in place to provide liquidity and capital to the financial system. These actions, coordinated with the international community, led to significantly improved financial markets by the end of the fiscal year. As of June 30, 2009, the federal funds rate stood at 0% to 0.25% and the Fed noted that the economic contraction was slowing and that inflation would likely remain subdued.

Public Debt Policy Allocation



Public Debt Policy vs. Actual Allocation (As a Percentage of the Total Fund)



Long treasury rates exhibited an enormous amount of volatility throughout the fiscal year starting at 4.53% and ending at 4.33%; however, yields plummeted to 2.52% during the fourth quarter of 2008 with a nearly equivalent move higher in 2009. Short-term rates declined by over 1.5% as the Fed aggressively lowered the federal funds rate and market participants moved to the short end demanding liquidity and safety. This led to a significantly steeper yield curve as contrasted to the curve seen at the end of the previous fiscal year.

On the economic front, the declines in all areas of the housing market that began in FY07 continued in FY09 with further significant declines occurring. Gross Domestic Product began contracting at a nearly 4% year-over-year rate by the end of FY09. CPI began the fiscal year at 5% and fell to -1.4% by the end of FY09. A significant factor affecting CPI was the dramatic fall in commodity prices throughout FY09. One example was crude oil which began the fiscal year at around \$140 per barrel and fell to below \$34 by the end of 2008 before rebounding to \$70 by June 30, 2009.

The broad debt market as represented by the Barclays Capital Aggregate Index experienced a return of 6.05% for FY09. The investment grade corporate market gained 3.84% during the fiscal year while the high yield market had a return of -2.40%. Investment grade and high yield spreads widened and contracted very sharply in FY09 with unprecedented volatility. The net change over the fiscal year was that investment grade spreads widened 38 basis points and high yield spreads widened 272 basis points.

Overall, the general theme for FY09 was financial market turmoil that resulted in world governments intervening in the financial markets. The Fed is positioned to keep interest rates at current levels in the short-term and work on plans to unwind the government programs put in place during FY09.

## Performance

The public debt portfolio returned -5.3% for the fiscal year, falling significantly short of the policy benchmark return of 2.5% and the strategy benchmark return of 3.6%. During the fiscal year, the underperformance to the policy benchmark was attributable primarily to the implementations within market neutral and to a lesser extent the implementations within core fixed income and high yield. The portfolio is currently positioned with less credit risk and less interest rate risk than is the policy benchmark, factors that will enable long-term performance to exceed the benchmark over a prolonged period of time. The bar chart to the right illustrates performance over longer periods of time.

Public Debt Return vs. Benchmarks



<sup>12</sup> As of 6/30/09, the public debt policy benchmark was comprised of the following components: 33.3% Barclays Aggregate, 33.3% Barclays U.S. TIPS, 16.7% Barclays High Yield, and 16.7% T-Bills + 4%.

<sup>13</sup> As of 6/30/09, the public debt strategy benchmark was comprised of the following components: 24.4% core bond consisting of actual return of beta fixed income; 38.4% Barclays U.S. TIPS; 16% high yield consisting of Barclays High Yield, CSFB Leverage Loan Index, and actual return of Bayview; and 21.2% T-Bills + 4%. A strategy benchmark for the 15-year period is not available.

## Top Ten Holdings

The top ten holdings within the public debt portfolio as of June 30, 2009, are illustrated in the table below.

### Ten Largest Holdings

Holdings	Market Value	Percent of Total MOSERS Public Debt Portfolio
U.S. Treasury Inflation Index Note - 2.625%, 2017	\$126,064,727	6.9%
U.S. Treasury Inflation Index Note - 2.000%, 2014	125,897,717	6.9
U.S. Treasury Inflation Index Bond - 2.375%, 2025	118,241,044	6.5
U.S. Treasury Inflation Index Note - 2.375%, 2017	93,979,459	5.1
U.S. Treasury Inflation Index Note - 3.000%, 2012	67,140,497	3.7
U.S. Treasury Inflation Index Note - 2.000%, 2012	56,917,413	3.1
U.S. Treasury Inflation Index Bond - 2.375%, 2027	47,009,229	2.6
U.S. Treasury Inflation Index Bond - 2.000%, 2026	42,182,955	2.3
U.S. Treasury Bill - 0.000%, 2009	36,499,416	2.0
U.S. Treasury Inflation Index Note - 4.250%, 2010	23,533,754	1.3

## Core Fixed Income

### Market Value

The core fixed income allocation was \$445.4 million as of June 30, 2009, or 7.2% of the total fund and below its policy target of 10%.

### Summary of Portfolio

The core fixed income sub-asset class on a funded basis gives the total fund exposure to high quality fixed income instruments which, in turn, provide stable cash flows and excellent liquidity to the portfolio. Types of fixed income securities that may be held within this portfolio include U.S. Treasuries, mortgage-backed securities, asset-backed securities, agency securities and investment-grade corporate bonds. Core fixed income is also the one segment within public debt that can be efficiently implemented synthetically due to the wide availability of treasury futures and swaps and their acceptance as mainstream instruments of portfolio management. Synthetic implementation of core exposure has been widely used since the addition of the beta/alpha program in FY05. Beta/alpha within the core segment is expected to be an efficient means of achieving superior risk adjusted returns over an entire economic cycle. Please refer to the section on beta/alpha on pages 105-106 for a more complete description of the program and its rationale. The fixed income asset class provides meaningful diversification to the portfolio in a variety of different economic scenarios. Core fixed income performs well, but would typically lag equities, in periods of good economic growth and falling inflation. One should also expect adequate performance from the core portfolio in periods of falling growth and stable inflation.

### Statistics

The table below displays statistical performance data (net of fees) for the core fixed income portfolio as of June 30, 2009.

### Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
Annualized return	(3.7)%	3.9%	3.7%	5.2%
Annualized standard deviation	9.3%	5.9%	4.8%	4.5%
Sharpe ratio	(0.5)	0.1	0.1	0.4
Excess return*	(9.7)%	(2.5)%	(1.3)%	(0.9)%
Beta*	1.3	1.2	1.1	1.1
Annualized alpha*	(11.4)%	(3.3)%	(1.5)%	(1.1)%
Correlation*	0.9	0.8	0.8	0.9

\* As compared to the Barclays Capital Aggregate Bond Index.

## Investment Advisors

As of June 30, 2009, MOSERS did not have any contracts with external investment advisors for the management of separate fixed income portfolios; however, the core segment participates in the beta/alpha program as mentioned. In the program, beta and alpha are completely separated, such that the beta exposure is gained through synthetic replication of the core components and the alpha is gained through the manager pool.

The table below displays the investment advisors that were under contract with MOSERS at FY09 for the management of core fixed income portfolios. Information regarding management fees paid to these managers may be found on pages 82-83 of this report.

Investment Advisors		
Investment Advisor	Style	Portfolio Market Value
Beta/alpha program	Active	\$445,365,111

## Brokerage Activity

In FY09, MOSERS generated the following core fixed income brokerage activity ranked by percentage of total market value, through the purchase and sale of core fixed income assets.

Brokerage Activity			
Broker/Dealer Firm	Par Amount Traded	Market Value Traded	Percent of Total Trading Volume by Market Value
Credit Suisse	\$ 608,125,197	\$ 606,925,730	24.9%
Deutsche Bank	400,557,133	404,217,334	16.6
J.P. Morgan	371,752,813	374,679,884	15.4
Bank of America	239,979,128	241,050,750	9.9
Citigroup	229,220,830	236,010,041	9.7
Lehman Brothers	192,995,927	188,354,121	7.7
Barclays	172,279,820	172,733,532	7.1
Morgan Stanley	126,744,521	129,110,613	5.3
Goldman Sachs	40,101,614	40,586,118	1.7
Other (Includes 12, each contributing less than 1%)	42,018,323	43,019,629	1.8
Totals	\$2,423,775,306	\$2,436,687,752	100.0%

## High Yield Bonds

### Market Value

The high yield bond allocation was \$299.6 million as of June 30, 2009, or 4.8% of the total fund.

### Summary of Portfolio

The high yield bond portfolio invests in debt securities whose credit ratings are below investment grade quality. Relative to the core fixed income portfolio, this sub-asset class provides superior coupon cash flow, as well as some diversification benefit due to a reduced sensitivity to changes in interest rates. MOSERS views this allocation as one that is likely to be variable and very much dependent upon the particular stage of the economic cycle being experienced at the time of the allocation decision. As of June 30, 2009, MOSERS was slightly under the 5% policy target allocation to high yield bonds as one means by which to limit credit risk.

## Statistics

The table below displays the statistical performance data (net of fees) for the high yield bond portfolio as of June 30, 2009.

### Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	Since Inception*
Annualized return	(11.0)%	(3.0)%	1.3%	5.4%
Annualized standard deviation	22.0%	13.5%	10.8%	9.5%
Sharpe ratio	(0.5)	(0.5)	(0.2)	0.3
Excess return**	(8.6)%	(5.0)%	(3.0)%	(1.5)%
Beta**	0.7	0.7	0.7	0.7
Annualized alpha**	(10.1)%	(4.3)%	(1.6)%	0.7%
Correlation**	0.9	0.8	0.8	0.8

\* Inception date October 2001

\*\* As compared to the Barclays Capital High Yield Bond Index

### Investment Advisors

As of June 30, 2009, MOSERS had contracts with four external investment advisors for the management of the high yield bond portfolio. Information related to these managers is included in the table below. For information on management fees paid, consult the table on pages 82-83 of this report.

### Investment Advisors

Investment Advisor	Style	Portfolio Market Value
BlackRock Financial Management, Inc.	Active high yield bond	\$225,003,646
NISA Investment Advisors, LLC	Credit/EURO hedge	6,041,183
OCM European Credit Opportunities Fund	Opportunistic European	30,824,827
Bayview Asset Management, LLC	Opportunistic mortgages	37,727,366
Total		<u><u>\$299,597,022</u></u>

### Brokerage Activity

In FY09, MOSERS generated the following high yield bond brokerage activity, ranked by percentage of total market value, through the purchase and sale of high yield assets.

### Brokerage Activity

Broker/Dealer Firm	Par Amount Traded	Market Value Traded	Percent of Total Trading Volume by Market Value
Barclays	\$122,465,766	\$132,261,127	26.5%
Citigroup	105,982,804	125,152,392	25.0
J.P. Morgan	47,358,803	41,845,815	8.4
UBS	28,187,436	39,865,666	8.0
Deutsche Bank	33,908,397	34,975,048	7.0
Credit Suisse	29,739,066	24,743,290	5.0
Bank of America	27,481,027	23,675,173	4.7
Morgan Stanley	21,730,077	18,687,963	3.7
Goldman Sachs	21,917,813	18,506,107	3.7
Royal Bank of Scotland	7,334,646	5,946,448	1.2
Broadpoint	6,789,849	5,527,318	1.1
Other (includes 26, each contributing less than 1%)	33,281,972	28,489,035	5.7
Totals	\$486,177,656	\$499,675,382	100.0%

# Treasury Inflation Protected Securities (TIPS)

## Market Value

The TIPS allocation was \$700 million or 11.2% of the total fund as of June 30, 2009.

## Summary of Portfolio

TIPS are fixed income securities issued and guaranteed by the U.S. government. The yield on these securities is specifically tied to inflation, as measured by the U.S. consumer price index, plus a predetermined yield above and beyond inflation. The TIPS allocation provides an excellent match relative to the system's liabilities in terms of its ability to provide inflation protection. As of June 30, 2009, MOSERS was 1.2% over the 10% policy target allocation to TIPS, a likely function of market value drift during the fiscal year and an unwillingness to rebalance into nontreasury securities that had performed poorly.

## Statistics

The table below displays the statistical performance data (net of fees) for the TIPS portfolio as of June 30, 2009.

### Statistical Performance

Fiscal Year 2009	Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
	Annualized return	(1.0)%	6.0%	5.1%	8.6%
	Annualized standard deviation	13.5%	8.8%	7.3%	8.6%
	Sharpe ratio	(0.1)	0.3	0.3	0.6
	Excess returns*	0.1%	0.2%	0.2%	0.2%
	Beta*	1.0	1.0	1.0	1.0
	Annualized alpha*	0.1%	0.2%	0.2%	0.1%
	Correlation*	1.0	1.0	1.0	1.0

\* As compared to the Barclays Capital U.S. TIPS Bond Index

## Investment Advisors

As of June 30, 2009, the TIPS portfolio was 100% internally managed. The following table summarizes the details.

### Investment Advisors

Investment Advisor	Style	Portfolio Market Value
Internal staff	Passive	\$699,994,463

## Brokerage Activity

In FY09, MOSERS generated the following TIPS brokerage activity, ranked by percentage of total market value, through the purchase and sale of TIPS.

### Brokerage Activity

Broker/Dealer Firm	Par Amount Traded	Market Value Traded	Percent of Total Trading Volume by Market Value
Citigroup	\$ 93,800,000	\$110,585,450	46.3%
Credit Suisse	64,700,000	70,580,114	29.6
Barclays	24,500,000	24,715,573	10.3
Bank of America	13,500,000	18,007,722	7.5
Deutsche Bank	13,150,000	14,926,259	6.3
Totals	\$209,650,000	\$238,815,118	100.0%

# Market Neutral

## Market Value

As of June 30, 2009, the market neutral allocation was \$384.4 million, or 6.2% of the total fund.

## Summary of Portfolio

The market neutral portfolio consists of a variety of managers who utilize skill-based investment strategies, which allow them to take advantage of periodic inefficiencies that may exist within the market. The expectation for this sub-asset class is to produce consistent absolute returns in various economic environments. More directly, it is expected that this portfolio will generate returns of 4% in excess of returns on 90-day Treasury bills with similar volatility to what is expected from the core fixed income portfolio. Market neutral investments also provide diversification and downside protection to the portfolio. MOSERS utilizes its beta/alpha program described on pages 105-106 to gain exposure to this sub-asset class. This allows MOSERS to invest in an extremely diversified pool comprised of a variety of different types of strategies that provide additional risk protection and alpha that is uncorrelated to both the stock and the bond markets. As of June 30, 2009, MOSERS is 1.2% over the 5% policy target allocation to market neutral with a belief that, going forward, market neutral offers good protection from interest rate risk and is a better place in which to capture the risk premium from credit.

## Statistics

The table below displays the statistical performance data (net of fees) for the market neutral portfolio as of June 30, 2009.

### Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	Since Inception*
Annualized return	(11.1)%	0.3%	2.7%	3.7%
Annualized standard deviation	8.1%	5.8%	4.7%	4.3%
Sharpe ratio	(1.5)	(0.5)	(0.1)	0.2
Excess return**	(15.9)%	(6.7)%	(4.3)%	(2.9)%
Beta to S&P 500	0.2	0.2	0.2	0.1
Beta to Lehman Aggregate	0.5	0.1	0.0	0.1

\* Inception date December 2002

\*\* As compared to T-bills + 4%

## Investment Advisors

MOSERS' market neutral exposure is captured through the 18 managers comprising the alpha program, which is detailed on pages 105-106. Below is a table summarizing MOSERS' market neutral investment within this pool as of June 30, 2009. Information on manager fees paid can be found on pages 82-83 of this report.

### Investment Advisors

Investment Advisor	Style	Portfolio Market Value
Beta/alpha program	Market neutral	\$384,431,304

# Alternative Investments Asset Class Summary

As of June 30, 2009, the alternative investments portfolio had a market value of \$1.5 billion, representing 23.8% of the total fund. Performance for the fiscal year was -22.8% net of fees and expenses.

## Highlights

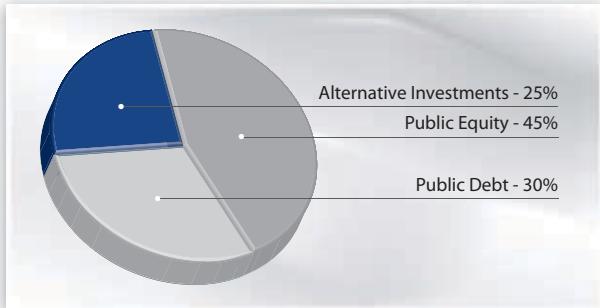
Fiscal year 2009 will be remembered as a period when the financial markets suffered distress that has not been experienced in several decades. While the fundraising environment for many private investments slowed to a trickle, there were still opportunities to refine the alternative investment portfolio. During the year, there were a few changes to both the private investment and real asset portfolios. The highlights are listed below:

- MOSERS committed additional assets to an existing manager within the private investments sub-asset class portfolio. The commitment was made to JLL Partners, a private equity manager that seeks to take controlling interest in fundamentally strong companies across a wide range of industries. The commitment was made early in the fiscal year prior to the events of the fall.
- MOSERS made a commitment to a new manager in the private investments sub-asset class portfolio. Axiom Asia is a private equity fund-of-funds manager that invests throughout the Asia Pacific region. An investment in Axiom represents an investment in some of the fastest growing economies in the world. The commitment represents MOSERS' third investment in the emerging market private equity segment of the market.
- For the past few years, MOSERS' real assets portfolio has included an investment in master limited partnerships (MLPs). Historically, the exposure has been obtained through both active and passive investment strategies. During the year, MOSERS' staff was given permission by the board to manage the passive strategy in-house. This change, effective July 1, 2009, will benefit the system by reducing investment management fees paid to external managers.
- During the year, the services of two external managers were no longer needed. Bush O'Donnell, MOSERS' former passive MLP manager, was terminated to bring the portfolio in-house. Also, a partnership with Relational Investors was dissolved in order to fund private equity commitments. Relational managed an activist equity strategy that invests in publicly traded equities. The mandate with Relational was a way to gain immediate private equity-like exposure for those dollars targeted for private investments. From the inception of the mandate, the plan was to use this allocation as a source from which calls for capital could be funded.
- As mentioned earlier, MOSERS made two commitments within the alternative investments portfolio totaling \$90 million, which was below the amount targeted for investment during the fiscal year. The commitment pace slowed; due in part to the decline in the value of the total portfolio which caused the alternative investment portfolio, as a percent of the total fund, to increase. Commitments were also scaled back in order to manage the liquidity of the total fund. The pace of future commitments will be determined after considering several factors, including calls for capital and distributions from existing partnerships as well as growth of the overall portfolio.

## Portfolio Structure

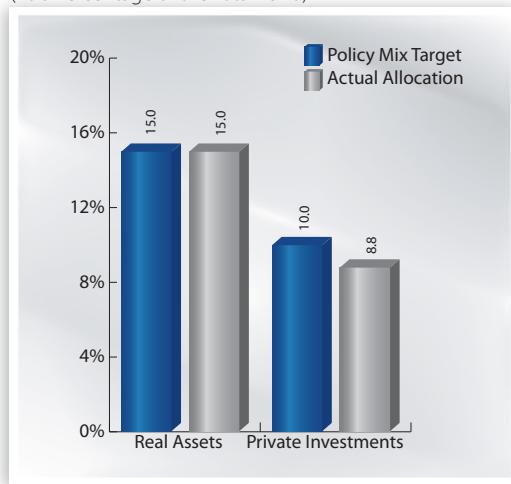
The target allocation for alternative investments is 25% of the total fund. The allocation is further divided into two sub-asset classes, real assets and private investments. The allocation to real assets is targeted at 15% of the total fund and is made up of three components; commodities, timber, and real estate. The private investments allocation has a target of 10% of the total fund and is comprised of two components; private equity and private debt. Over the

Alternative Investments Policy Allocation



past year, additional investments were made in the private equity portion of the portfolio while the other components remained relatively close to their allocation targets. At the end of the fiscal year, private investments were 1.2% below their policy allocation target. The entirety of the underweight was within the private equity component. Over the next few years, the plan that has been implemented will move the allocation towards the target. The real assets sub-asset class is at its target of 15%. The bar chart to the right illustrates the actual allocation of real assets and private investments relative to the board's policy allocation as of June 30, 2009. Overall the alternative investment portfolio is made up of five distinct components and represents a conscious effort to build a portfolio with a great deal of diversification. The table below reflects the investment components and their correlation to each other.

Alternative Investments Policy vs. Actual Allocation  
(As a Percentage of the Total Fund)



#### Alternative Investments Correlations - 5 year period

Sub-Asset Class	Real Estate	Commodities	Timber	Private Equity	Private Debt
Real estate	1.0				
Commodities	0.1	1.0			
Timber	0.1	(0.1)	1.0		
Private equity	0.6	0.3	0.2	1.0	
Private debt	0.4	0.5	0.0	0.8	1.0

The table below summarizes the allocation ranges established by the board.

#### Strategic Sub-Asset Allocation Ranges (as a Percentage of the Total Fund)

Sub-Asset Class	Minimum	Maximum	Policy Target
Real assets	10%	20%	15%
Private investments	5%	15%	10%

### Market Overview

Alternative investments have been part of MOSERS' allocation since June 2002, when the board of trustees adopted a revised asset mix. Since that time, a great deal of work has taken place to select the current portfolio of investments. This group of assets is managed by 27 external managers, some of whom manage multiple investments within and across portfolio components. Alternative investments provide a number of positive attributes to the overall fund, including diversification, enhanced returns, inflation protection, and current income. Each component of the portfolio provides one or more of these characteristics. For example, real assets, such as timber and commodities, are expected to diversify the overall fund and provide inflation protection. Private investments are in the portfolio to provide returns in excess of those available in the publicly traded markets.

The alternative investment portfolio was impacted by the economic environment experienced during FY09. For the 12 months ending June 30, 2009, the portfolio returned -22.8%. This return is comprised of the returns from the sub-asset class portfolios. For the year, the real assets portfolio returned -19.8%, while the private investments portfolio was -27.3%. Of the five components within the alternative investment portfolio, timber was the only one to register a positive return. Despite the negative performance of most of the portfolio components, each contributed to the diversification of the overall fund.

Timber, as previously mentioned, was the only component to appreciate over the fiscal year. For the period, the timber portfolio returned 8.3%, compared to the 3.3% return for the National Council of Real Estate Investment Fiduciaries (NCREIF) Timberland Index. The strong relative performance can be attributed to the system's timberlands in the Southern U.S. which experienced a valuation increase from its calendar year-end appraisal. Timber has been a terrific investment for

the system over the past five years as it has delivered equity-like returns with much less risk. After many quarters of positive returns, the NCREIF Timberland Index experienced its first negative quarterly return in the second quarter of 2009. The index is beginning to see managers incorporate the impact of depressed timber prices and weak housing demand into their valuations.

The real estate component of the real assets portfolio returned -24.4% for FY09. The portfolio's benchmark, the Dow Jones REIT Index, returned -45.3% for the year. The index measures the value of publicly traded real estate investment trusts involved in the office, retail, industrial, residential, hotel, storage and health care sectors. Private real estate, as measured by the NCREIF Property Index, fared better over this period returning -19.6% for the year ending June 30, 2009. Returns for the private real estate sectors were all negative with four of the five experiencing returns of approximately -20%.

Commodities, the remaining component of the real assets portfolio, suffered the largest decline among the components as the portfolio returned -58.4%. The commodities index represented by the Standard & Poor's, Goldman Sachs Commodity Index (S&P GSCI Index) has been extremely volatile over the past year and one half. Last fiscal year, commodities contributed the most to performance as the portfolio generated a return of 73.9%. One silver lining is that the portfolio was overweight relative to the target allocation for a good part of FY08 while prices appreciated, and underweight most of FY09 when commodity prices declined.

The private investments portfolio had another tough year as problems in the credit markets that date back to August 2007 continue. Fundraising for private equity has been very slow compared to a few years ago when the economy was vibrant and the credit markets were flush with money to lend. Overall, the private investments portfolio returned -27.3%. The private equity and private debt components experienced returns that were similar to one another as they returned -29.4% and -26.8%, respectively. During the year, only two commitments were made, reflecting the lack of activity in this economic environment. Both commitments were in the private equity portion of the portfolio. The first commitment was to a U.S. buyout fund managed by a current general partner and the second was made to a fund-of-funds manager that specializes in making investments in the Asian markets.

Over the coming years, MOSERS will continue to commit new money to private equity in a disciplined manner to reach its target allocation and to achieve vintage year diversification. Committing money year after year helps mitigate the risks associated with committing too much money in a poor vintage year.

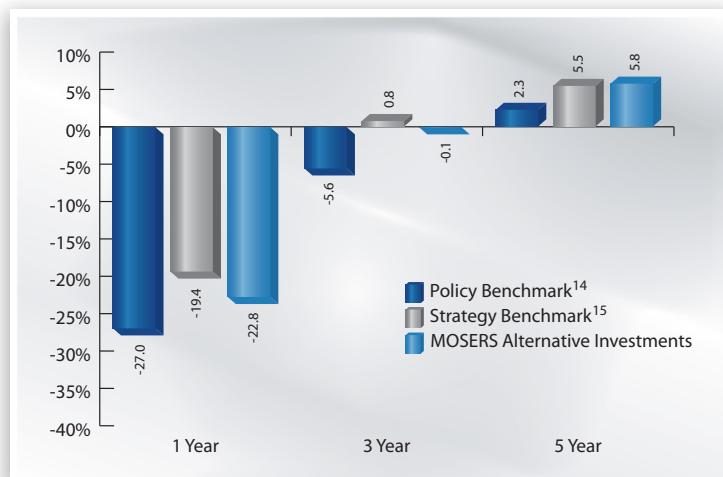
## Performance

The overall return of MOSERS' alternative investments portfolio was -22.8% for the fiscal year, outperforming the policy benchmark which returned -27%. The portfolio underperformed the -19.4% return for the strategy benchmark as illustrated in the bar chart to the right.

The policy benchmark for the alternative investment portfolio is a weighted average of the allocation mix and the policy benchmark of each component. The policy benchmark is designed to provide a return that could be achieved if the portfolio were to have been invested on a passive basis. By comparing the actual return with the policy benchmark, the amount of value-added

can be determined. The overall alternative investment portfolio outperformed the policy benchmark by 4.2%, which is the result of three of the five components performing better than their respective policy benchmarks. The real estate and timber components were the primary contributors, while the private investment components detracted.

Alternative Investment Return vs. Benchmarks



<sup>14</sup> As of 6/30/09, the alternative investments policy benchmark was comprised of the following components: 24% Wilshire REIT, 24% NCREIF Timberland Index, 40% S&P 500 + 3%, and 12% GSCI.

<sup>15</sup> As of 6/30/09, the alternative investments strategy benchmark was comprised of the following components: 26.6% real estate consisting of NCREIF, STIF Return, S&P MLP TR Index, actual return of Bayview; 7.4% commodities consisting of S&P GSCI TR Index and S&P GSCI Gold Excess Return Index; 29.4% NCREIF Timberland Index 36.7%; and S&P 500 + 3%.

The alternative investment portfolio underperformed the strategy benchmark by 3.4% during the fiscal year. The strategy benchmark seeks to attribute performance to decisions made by staff to either deviate from the policy asset allocation or to utilize strategies that differ from the policy. This 3.4% underperformance can be attributed to multiple components as only commodities made a positive contribution. The strategy benchmark utilizes a set of indexes that closely match the characteristics of the actual underlying investments. For example, the real estate portfolio is partially invested in private real estate. Instead of using the Dow Jones REIT Index for this portion of the portfolio the strategy benchmark uses the NCREIF Property Index.

In summary, the alternative investments portfolio added value relative to the policy benchmark due to the decision to invest in a group of assets that collectively outperformed the policy benchmark.

## Statistics

The table below displays the statistical performance data (net of fees) of the alternative investments portfolio as of June 30, 2009.

Portfolio Characteristics	1 Year	3 Year	5 Year	Since Inception*
Annualized return	(22.8)%	(0.1)%	5.8%	8.7%
Annualized standard deviation	12.8%	9.6%	8.4%	8.9%
Sharpe ratio	(1.9)	(0.4)	0.3	0.7
Excess return**	4.3%	5.4%	3.4%	2.5%
Beta**	0.3	0.4	0.4	0.5
Annualized alpha**	(15.7)%	1.8%	4.5%	5.2%
Correlation**	0.7	0.7	0.7	0.8

\* Inception date July 2002

\*\* As compared to the alternative investments policy

## Real Assets

### Market Value

The real assets allocation was \$935.2 million as of June 30, 2009, representing 15% of the total fund. The portfolio is made up of three components with the following market values and percentages of the total fund: commodities, \$105.3 million, 1.7%; timber, \$444.3 million, 7.1%; and real estate, \$385.6 million, 6.2%.

### Summary of Portfolio

The target allocation for real assets is set at 15% of the total fund and can move within an allocation range of 10% to 20%.

The commodities component of the real assets portfolio is obtained through an account managed by NISA Investment Advisors. The manager gains exposure to the underlying commodities through the use of exchange-traded futures contracts and swap agreements. Collectively, the contracts make up a portfolio that is benchmarked against the S&P GSCI, a benchmark that tracks a broad group of commodities. From time to time, NISA or MOSERS will attempt to add incremental return as market opportunities present themselves.

MOSERS' timber component is made up of several groups of timberlands managed by three timber investment management organizations (TIMO). The portfolio is diversified geographically with most properties located in the southeast and northwest regions of the U.S. One TIMO manages a portfolio of non-U.S. properties. This portfolio holds investment properties in Australia, New Zealand and South America. The timber component is also diversified by age and species. Returns from the timber component are expected to be attractive while providing diversification and inflation protection.

The current makeup of the real estate component consists of a variety of strategies that exhibit risk/return characteristics that are similar to those of real estate. The exposures in the portfolio remain close to those held last year

and include private real estate, MLPs, residential mortgages, oil and gas assets and private debt investments. A few years ago, MOSERS divested from REITs because they were thought to be overvalued. Over the past two years ending June 30, 2009, REITs have an annualized return of -33.6%. The portfolio is invested in a collection of assets that offer the potential to outperform REITs. Over long-term periods, private opportunistic real estate funds should provide returns greater than those of publicly-traded REITs due to the illiquidity premium associated with owning private assets. MLPs are relatively attractive due to their higher yield and better valuation characteristics. Residential mortgage exposure is in the portfolio to take advantage of an opportunity in the credit markets. Finally, the real estate debt and oil and gas assets are held because they are relatively attractive and their characteristics are similar to those of real estate.

## Statistics

The table below displays the statistical performance data (net of fees) of the real assets portfolio as of June 30, 2009.

Statistical Performance					
Portfolio Characteristics	1 Year	3 Year	5 Year	Since Inception*	
Annualized return	(19.8)%	3.8%	8.8%		9.5%
Annualized standard deviation	10.5%	9.0%	8.6%		9.1%
Sharpe ratio	(2.0)	0.1	0.6		0.7
Excess return**	10.1%	9.5%	5.2%		3.7%
Beta**	0.2	0.3	0.3		0.4
Annualized alpha**	(14.7)%	5.3%	7.3%		6.7%
Correlation**	0.6	0.6	0.6		0.7

\* Inception date July 31, 2002

\*\* As compared to the real assets policy

## Investment Advisors

The real assets strategy is implemented through 17 distinct portfolios managed by 12 external investment firms. At the end of the fiscal year, the real assets allocation was in line with the 15% policy target. Within the sub-asset class, timber and real estate allocations were slightly above the policy target and commodities were a bit below the target. During FY09, the components within real assets were unchanged. Going forward, MOSERS' internal staff will manage the passive MLP portfolio currently managed by Bush O'Donnell Investment Advisors. By bringing the assets inhouse, management fees paid to external managers will be reduced and staff will be able implement tactical views more efficiently. The table at the top of the following page shows the investment advisors in place at the end of FY09 that manage MOSERS' real assets portfolio.

## Investment Advisors

Investment Advisor	Style	Portfolio Market Value
Bayview Asset Management	Residential mortgages	\$ 37,727,366
Blackstone Real Estate Advisors	Active real estate	121,471,066
Bush O'Donnell Investment Advisors	Passive MLP	61,586,319
The Campbell Group	Northwestern U.S. timber	50,832,640
CarVal Investors	Distressed real estate & debt	40,150,000
Global Forest Partners	International timber	155,035,966
Harvest Fund Advisors	Active MLP	28,944,248
Internal Staff*	Active duration U.S. Treasuries	88,634,608
Internal Staff*	Cash	3,904,952
Merit Energy	Oil & gas	4,691,177
NISA Investment Advisors	Enhanced commodity index	105,293,293
Oaktree Capital Management	Active real estate	27,748,764
Resource Management Service	Southeastern U.S. timber	148,376,832
Trust Company of the West	Mezzanine debt, diversified energy	60,831,450
Total		\$935,228,681

\* Temporary placeholders for future capital drawdowns to fund managers

# Private Investments

## Market Value

The private investments allocation had a value of \$548.8 million as of June 30, 2009, representing 8.8% of the total fund. The value of the private equity component was \$313.7 million, and the private debt component was valued at \$235.1 million.

## Summary of Portfolio

The private investments component is made up of a variety of strategies each with its own risk/return profile. The board made an allocation to private investments in order to achieve the higher returns associated with illiquid investments and to increase diversification at the total fund level. This portion of the portfolio is expected to produce returns in excess of the public equity market over a full-market cycle and therefore is assigned a policy benchmark of the S&P 500 Index plus 3%.

In FY09, two commitments were made to two private equity managers and one relationship was terminated. The first commitment was made early in the fiscal year to an existing manager, JLL Partners. JLL invests domestically in the middle market corporate buyout segment of private equity. The second commitment was made to Axiom Asia, a fund-of-funds that invests in a variety of strategies within the emerging and developed markets of Asia. Axiom Asia represents the System's third commitment to emerging market private equity. As mentioned earlier, Relational Investors was terminated in order to access liquidity to fund private equity investments. Relational's activist equity strategy involved investing in publicly traded equities which make it more liquid than other private investments. Originally, the investment was made as a way to gain immediate private equity-like exposure while maintaining a degree of liquidity. The thought was that the liquidity could be tapped when needed to fund future calls for capital and new investments. MOSERS will continue to commit to private equity investments over the years in order to reach and sustain its target allocation of 7.5%.

FY09 was a very volatile year for the credit markets. The private debt markets were not spared as values moved sharply lower to reflect the distress in the markets that occurred in the fall of 2008. Markets have since become more stable but have not yet fully recovered. MOSERS was active in the previous fiscal year in terms of committing money to private debt vehicles within the private debt component. During FY09, a large amount of capital was drawn to take advantage of the opportunities existing in the market. MOSERS invests with managers who utilize a variety of strategies. The manager's ability to analyze, purchase, and actively manage the undervalued securities is critical to achieving attractive returns within this component of the portfolio.

## Statistics

The table below displays the statistical performance data (net of fees) of the private investments portfolio as of June 30, 2009.

### Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	Since Inception*
Annualized return	(27.3)%	(6.3)%	0.9%	10.0%
Annualized standard deviation	17.4%	12.1%	10.4%	13.1%
Sharpe ratio	(1.6)	(0.8)	(0.2)	0.6
Excess return**	(4.1)%	(0.6)%	0.8%	0.9%
Beta**	0.5	0.6	0.6	0.7
Annualized alpha**	(18.3)%	(3.4)%	0.8%	3.4%
Correlation**	0.8	0.8	0.8	0.8

\* Inception date September 30, 2002

\*\* As compared to the total private investments policy

## Investment Advisors

The private investment component consists of 26 separate fund investments managed by 17 external investment managers. During FY09, fewer commitments were made than in previous fiscal years. Within the private equity market the environment was characterized by a steep decline in fund distributions and limited ability to exit investments. This led to fewer new funds being raised as investors had less capital available. The private debt market was deluged by managers, both traditional debt managers and others, trying to raise money to take advantage of the opportunities in the credit market. MOSERS will continue to invest in this sub-asset class over the coming years in an effort to reach and maintain the target allocation of 10%. The advisors in this sub-asset class as of June 30, 2009, are listed in the table below.

Missouri State Employees' Retirement System | Fiscal Year 2009 | Investment Section

### Investment Advisors

<b>Investment Advisor</b>	<b>Style</b>	<b>Portfolio Market Value</b>
Actis Capital	Emerging markets, global	\$ 4,944,582
Alinda Capital Partners	Corporate buyout; infrastructure	20,728,407
Axiom Asia Private Capital	Emerging markets; fund-of-funds	1,818,887
Bridgepoint Capital	Corporate buyout; foreign	24,249,091
CarVal Investors	Distressed real estate & debt	40,150,000
Catterton Partners	Corporate buyout	32,418,995
DDJ Capital Management	Distressed debt	13,594,788
Development Partners International	Emerging markets, Africa	1,788,722
JLL Partners	Corporate buyout	34,671,894
Internal Staff*	Cash	612,261
MHR Fund Management	Distressed debt	73,753,252
New Mountain Capital	Corporate buyout	11,217,408
NISA Investment Advisors*	Equity futures	34,064,128
Oaktree Capital Management	Distressed debt/European debt	106,989,163
OCM/GFI Power Opportunities	Corporate buyout	15,195,523
Parish Capital Partners	Corporate buyout; fund-of-funds	43,404,288
Relational Investors	Activist equity	380,739
Silver Creek Management	Special situations	45,983,809
Silver Lake Partners	Corporate buyout	17,648,189
Veritas Capital Partners	Corporate buyout	25,197,916
Total		<u>\$548,812,042</u>

\* Temporary placeholder for future capital drawdowns to private equity managers.

## Brokerage Activity

The table below displays the brokerage activity which occurred within the alternative investments portfolio during the fiscal year ended June 30, 2009.

### Brokerage Activity

<b>Broker Firm</b>	<b>Shares Traded</b>	<b>Dollar Volume of Trades</b>	<b>Commissions</b>	
			<b>Dollar Amount</b>	<b>Value Per Share</b>
AG Edwards & Sons	704,549	\$11,878,331	\$28,182	0.04
Instinet Corp	309,044	6,976,458	9,271	0.03
Total	1,013,593	\$18,854,789	\$37,453	0.04

## Soft Dollar Expenditures

There were no soft dollars utilized within the alternative investment portfolio during the fiscal year ended June 30, 2009.

## Beta/Alpha Program

The beta/alpha program consists of two parts, beta and alpha. This program began as a result of our belief that returns from these two components should be managed separately.

The beta portion of the program is managed by NISA Investment Advisors. NISA uses futures and/or total return swaps to gain market exposure to various predefined asset classes.

The alpha program is a group of active managers with little or no systematic beta exposure. The objective of the alpha component is to provide a net of fees alpha return of 4% with similar to slightly higher volatility. This return can then be applied to various asset classes.

The combination of the two components produces an efficient total return and also provides MOSERS a great deal of flexibility in the management of the fund.

## Beta Program

### Market Value

The total notional exposure was \$1.2 billion as of June 30, 2009. The beta component contained total return swaps and futures as of June 30, 2009. MOSERS is utilizing the beta component within the domestic equity, international equity, emerging market equity and core fixed income sub-asset classes.

### Summary of Program

The beta component was added to the total fund in FY05. The beta manager seeks market exposure in the most cost efficient manner. The beta manager seeks to produce a market return gross of the financing cost to gain beta exposure. The manager's goal is to provide market exposure.

### Statistics

The impact of the exposures is contained in the portfolios where the beta resides. Further information regarding swaps and futures can be found in the *Notes to the Financial Statements* on page 44.

### Investment Advisor

NISA Investment Advisors is the only manager in the beta program. The table below summarizes our investments within the beta pool as of June 30, 2009. Management fee information may be found on page 82-83 of this report.

Investment Advisor		
Investment Advisor	Style	Portfolio Market Value
NISA Investment Advisors	Synthetic beta exposure	\$1,188,247,064

## Alpha Program

### Market Value

The alpha program allocation was \$1.5 billion or 23.5% of the total fund as of June 30, 2009.

### Summary of Portfolio

The alpha program portfolio was added to the total fund in FY05. Alpha program managers utilize skill-based investment strategies, which allow them to take advantage of periodic inefficiencies that may exist within the market.

Alpha program managers seek to produce consistent returns in various economic environments. The ultimate goal within the alpha program is to provide consistent alpha with little correlation to other areas of the fund. MOSERS utilizes several different strategies within the alpha program including relative value, arbitrage, and event driven. This portfolio targets the return of cash plus 4% net of fees over long periods of time.

## Statistics

The table below displays the statistical performance data of the alpha program portfolio (net of fees related to the beta program) as of June 30, 2009.

Statistical Performance			
Portfolio Characteristics	1 Year	3 Year	Since Inception*
Annualized return	(12.1)%	(1.8)%	0.7%
Annualized standard deviation	7.9%	5.6%	4.8%
Sharpe ratio**	(1.5)	(0.4)	(0.0)
Beta as compared to the S&P 500	0.2	0.2	0.2
Beta as compared to the Lehman Aggregate	(0.5)	(0.1)	(0.1)

\* Inception date October 2004

\*\* Sharpe ratio equals the annualized alpha program return less the risk-free rate divided by the annualized standard deviation. Fees related to the beta program also reflect the risk-free rate and are therefore not considered in this calculation.

## Investment Advisors

The alpha program was started in FY05. Blackstone Alternative Asset Management, an existing manager, was transferred into the alpha program. The following managers were hired and added to the pool in FY05: AQR Capital Management, Barclays Global Investors, Bridgewater Associates, and Pacific Alternative Asset Management Company (PAAMCO). Aetos Capital was also hired in FY05 to construct a customized portfolio of core hedge funds that would later become the basis for the MOSERS direct hedge fund investment program. On January 1, 2009, MOSERS' internal staff assumed responsibility for the oversight of the hedge funds in the customized fund-of-funds portfolio. The table below summarizes the investments with hedge fund managers as of June 30, 2009. Management fee information may be found on page 82-83 of this report.

Investment Advisors			
Investment Advisor	Style	Portfolio Market Value	
Aetos Capital	Fund-of-funds	\$ 2,079,705	
AQR Capital Management	Multi-strategy	154,615,687	
Barclays Global Investors	Long/short equity	53,493,134	
Blackstone Alternative Asset Management	Fund-of-funds	197,670,798	
Blackstone Distressed Securities Advisors	Long/short credit	10,240,363	
Bridgewater Associates	Global macro	73,628,561	
Davidson Kempner Capital Management	Event driven	67,404,468	
Eton Park Capital Management	Multi-strategy	25,337,860	
Farallon Capital Management	Multi-strategy	39,745,654	
HBK Investments	Multi-strategy	28,176,541	
Hightside Capital Management	Long/short equity	27,330,599	
King Street Capital Management	Credit driven	71,732,730	
Moon Capital Management	Long/short equity	978,949	
Perry Capital	Multi-strategy	560,186	
Silver Point Capital	Credit driven	37,336,655	
TPG-Axon Capital Management	Long/short equity	41,174,179	
Viking Global Investors	Long/short equity	57,076,969	
Wellington Management	Long/short equity	16,868,469	
Pacific Alternative Asset Management Company	Fund-of-funds	248,597,842	
Alpha program cash	Short-term cash	311,008,973	
Total		\$1,465,058,322	

## Securities Lending Summary

In FY09, MOSERS earned net income of \$5,829,390 through its securities lending programs. During FY09, MOSERS took a write-down of approximately \$45 million related to the holding of Lehman Brothers securities in the cash collateral portfolio. Lehman Brothers filed for bankruptcy protection in September 2008. For the year ended June 30, 2009, MOSERS' securities lending program posted a loss of approximately \$50.4 million, including the Lehman write-down and other unrealized losses on the collateral reinvestment portfolio. These events had a negative impact on total fund performance of approximately .6% for FY09. MOSERS lends its domestic equities, international equities, and domestic fixed income to a borrower that manages an agent lending program.

In an agent lending program, a large custodial bank or investment banking institution acts on behalf of the beneficial owner to lend its securities. This type of lending program is essentially a "one-stop shopping" process in which all operational aspects of the program are centered exclusively with one entity. The agent lender is responsible for making the loans to various broker-dealers, investing the cash collateral associated with the loaned securities, marking the loans and collateral to market on a daily basis, and, in most cases, indemnifying the lender against the default of a broker-dealer to whom they have loaned securities on behalf of the beneficial owner.

### Domestic Equity

MOSERS generated total net income from the domestic equity agent-lending program of \$1,596,245 in FY09. The income from this program was \$15,290 less than FY08 stemming from a decrease in the average on loan balance. The on loan balance decrease more than offset the increase in margin expansion. Credit Suisse is the agent lender of MOSERS' securities for this program.

The table below contains the domestic equity securities lending program statistics from FY02 through FY09.

Statistics					
Year	Average Lendable	Average on Loan	Average Utilization	Return Added to Lendable Domestic Equities (Basis Points)	Net Income
FY09	\$ 307,082,718	\$114,261,769	37.2%	52.0	\$1,596,245
FY08	440,025,347	195,971,154	44.5	36.6	1,611,536
FY07	711,856,029	281,338,681	39.5	14.0	994,416
FY06	856,712,658	377,314,359	44.0	14.2	1,218,245
FY05	775,821,287	247,175,198	31.9	8.4	648,218
FY04	1,552,186,713	176,626,818	11.4	7.2	1,114,144
FY03	1,420,413,446	234,776,497	16.5	10.6	1,504,152
FY02	2,347,223,937	254,035,429	10.8	8.6	2,027,903

## International Equity

MOSERS generated total net income from the international equity securities lending program of \$510,622 in FY09. The income earned decreased from FY08 by \$215,943 due to a decrease in the average on loan balance, margin basis points and utilization rate. Credit Suisse manages this program in an agent capacity.

The table below contains the international equity securities lending program statistics from FY02 through FY09.

Investment Section

Fiscal Year 2009

Missouri State Employees' Retirement System

### Statistics

Year	Average Lendable	Average on Loan	Average Utilization	Return Added to Lendable International Equities (Basis Points)	Net Income
FY09	\$342,215,198	\$32,267,851	9.4%	14.9	\$ 510,622
FY08	467,893,205	56,944,925	12.2	15.5	726,565
FY07	485,230,034	41,033,858	8.5	8.1	395,017
FY06	483,512,648	48,077,237	9.9	12.9	605,315
FY05	360,790,809	39,881,555	11.1	13.2	476,226
FY04	462,783,570	53,655,836	11.6	9.7	446,880
FY03	544,976,709	36,820,686	6.8	13.7	744,985
FY02	728,081,371	70,020,289	9.6	15.5	1,130,928

## Domestic Fixed Income

MOSERS generated total net income from the domestic fixed income securities lending program of \$3,722,523 during FY09. The income from this program decreased by \$2,382,004 from FY08 primarily due to a decrease in the average on loan balance. There was also a decrease in the margin basis points and utilization rate contributing to the lower income. Credit Suisse manages this program in an agent capacity.

The table below presents the statistics for the domestic fixed income securities lending program for FY02 through FY09.

### Statistics

Year	Average Lendable	Average on Loan	Average Utilization	Return Added to Lendable Fixed Income (Basis Points)	Net Income
FY09	\$ 859,512,525	\$ 517,356,516	60.2%	43.3	\$3,722,523
FY08	1,082,813,165	894,372,380	82.6	56.4	6,104,526
FY07	950,069,746	695,743,093	73.2	15.5	1,469,860
FY06	1,183,366,350	776,959,063	65.7	15.7	1,853,181
FY05	1,091,262,589	776,038,981	71.1	19.5	2,126,695
FY04	1,231,730,491	1,043,891,521	84.7	20.1	2,475,630
FY03	969,156,824	757,537,477	78.2	17.6	1,707,400
FY02	899,565,271	720,912,307	80.1	19.5	1,750,764



A clear funding **strategy** to ensure that retirement promises made will be paid.

## **ACTUARIAL SECTION**

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# Actuary's Certification Letter



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October 20, 2009

The Board of Trustees  
Missouri State Employees' Retirement System  
907 Wildwood Drive  
Jefferson City, Missouri 65109

Dear Board Members:

The basic financial objective of the Missouri State Employees' Retirement System (MOSERS) is to establish and receive contributions which:

1. when expressed in terms of percents of active member payroll will remain approximately level from generation to generation of Missouri citizens, and which
2. when combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of MOSERS.

In order to measure progress toward this fundamental objective, MOSERS has annual actuarial valuations performed. The valuations (i) measure present financial position, and (ii) establish contribution rates that provide for the normal cost and level percent of payroll amortization of unfunded actuarial accrued liabilities over a reasonable period. The latest completed actuarial valuations were based upon data and assumptions as of June 30, 2009. These valuations indicate that the contribution rates for the fiscal year ending June 30, 2011, adopted by the board of trustees for the benefits scheduled to be in effect on July 1, 2009, meet the basic financial objective. These contribution rates are 13.81% of payroll for 55,057 general state Employees, and 60.03% of payroll for 397 Judges.

The actuarial valuations are based upon financial and participant data which is prepared by retirement system staff, assumptions regarding future rates of investment return and inflation, and assumptions regarding rates of retirement, turnover, death, and disability among MOSERS' members and their beneficiaries. The data is reviewed by us for internal and year-to-year consistency as well as general reasonableness prior to its use in the actuarial valuations. It is also summarized and tabulated for the purpose of analyzing trends. The demographic assumptions were adopted by the board of trustees in March, 2008 based upon recommendations made in an experience study covering the period from 2003 to 2007. The economic assumptions were adopted by the board of trustees in September 2001, amended and reaffirmed in March 2008, and again in September 2009. The assumptions and methods used in this valuation, in our opinion, meet the parameters established by Governmental Accounting Standards Board Statement No. 25.

The current benefit structure is outlined in the *Actuarial Section* of our report. Benefit provisions evaluated were unchanged from the previous valuation. We provided the information used in the supporting schedules in the *Actuarial Section* and the *Schedules of Funding Progress* in the *Financial Section*, as well as the employer contribution rates shown in the *Schedule of Employer Contributions* in the *Financial Section*.

Based upon the valuation results, it is our opinion that the Missouri State Employees' Retirement System continues to operate in accordance with actuarial principles of level percent of payroll financing.

Respectfully submitted,

Norman L. Jones, F.S.A.  
Senior Consultant & Actuary

Brad Lee Armstrong, A.S.A.  
Senior Consultant & Actuary

David T. Kausch, F.S.A.  
Consultant & Actuary

# Summary of Actuarial Assumptions

## Economic Assumptions

The investment return rate used in the valuations was 8.5% per year, compounded annually (net after investment expenses). This assumption is used to account for the fact that equal amounts of money payable at different points in time in the future do not have the same value presently.

Pay increase assumptions for individual active members are shown for sample ages on page 111. Part of the assumption for each age is for merit and/or seniority increase, and the other 4% recognizes wage inflation. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

The active member payroll is assumed to increase 4% annually, which is the portion of the individual pay increase assumptions attributable to wage inflation. For the 2009 valuation only, payroll is assumed to grow 0% the first year, then 4% annually thereafter to reflect the statewide temporary pay freeze.

The number of active members in the MSEP is assumed to remain constant although certain new hires on or after July 1, 2002, will participate in the College and University Retirement Plan (CURP). For judges, the number of active members is assumed to continue at the present number. Active and retired member data is reported as of May 31. It is assumed for valuation purposes that there is no turnover among members and no new entrants during the month of June.

The annual cost-of-living adjustment (COLA) is assumed to be 4%, on a compounded basis, when a minimum COLA of 4% is in effect. When no minimum COLA is in effect, price inflation is assumed to be 3.2% and the annual COLA is assumed to be 2.56% (80% of 3.2%), on a compounded basis.

## Noneconomic Assumptions

The mortality table for post-retirement mortality used in evaluating allowances to be paid was the 1971 Group Annuity Mortality Table, projected to the year 2000, with a two year setback for men and a one year age setback for women. Related values are shown on page 112. This assumption is used to measure the probabilities of each benefit payment being made after retirement.

The probabilities of age and service retirement are shown on page 113. For the MSEP, it was assumed that each member

will be granted one half year of service credit for unused leave upon retirement and military service purchases. The probabilities of withdrawal from service, disability and death-in-service are shown for sample ages on page 111. For disability retirement of the MSEP, impaired longevity was recognized by use of special mortality tables. For disability retirement of the judges, mortality tables were set forward 10 years.

The entry age normal actuarial cost method of valuation was used in determining liabilities and normal cost. The normal cost was based on the benefit provisions affecting new employees (MSEP 2000). Differences in the past between assumed experience and actuarial experience ("actuarial gains and losses") become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments, (principal & interest) which are level percents of payroll contributions.

Employer contribution dollars were assumed to be paid in equal installments throughout the employer's fiscal year.

Valuation assets recognize assumed investment return fully each year. Differences between actual and assumed investment return are phased in over a closed five-year period. Valuation assets are not permitted to deviate from the market value by more than 30% for the June 30, 2009 valuation. This limit will change to 25% for the June 30, 2010 valuation and 20% thereafter.

It is assumed that among active members 80% are married at retirement, 70% of those dying in active service are married, and men are three years older than their spouses.

The liabilities for active members hired on or after July 1, 2000 (April 26, 2005 for administrative law judges) were based on MSEP 2000 benefits. The liabilities for active members hired before July 1, 2000 for elected officials, General Assembly, and uniformed water patrol were based on MSEP benefits. All others were based on MSEP 2000 benefits. The BackDROP was only explicitly valued for those assumed to receive MSEP 2000 benefits.

The data about persons now covered and about present assets were furnished by the system's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries.

## Summary of Actuarial Assumptions

Separations From Active Employment Before Service Retirement  
and Individual Pay Increase Assumptions - June 30, 2009

MSEP

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year				Pay Increase Assumptions for an Individual Employee			
		Withdrawal		Death*		Disability		Merit and Seniority**	Base (Economy)
		Men	Women	Men	Women	Men	Women		
	0	23.8%	26.9%						
	1	18.9	20.5						
	2	15.3	15.4						
	3	12.8	12.5						
	4	11.8	10.9						
20	+5	11.8	10.9	.04%	.03%	.16%	.30%	3.5%	4.0%
25		11.8	10.9	.05	.04	.16	.30	2.9	4.0
30		10.0	10.0	.06	.04	.16	.30	2.2	4.0
35		7.5	7.6	.08	.05	.21	.30	1.6	4.0
40		5.6	5.6	.11	.07	.26	.32	1.2	4.0
45		4.2	4.4	.17	.09	.34	.38	0.9	4.0
50		3.4	3.9	.31	.14	.49	.57	0.7	4.0
55		3.0	3.3	.54	.24	1.07	.89	0.5	4.0
60		2.6	3.0	.83	.44	1.50	1.50	0.4	4.0
65		2.5	3.0	1.31	.71	1.60	1.70	0.3	4.0

\* 2% of the deaths in active service are assumed to be duty-related

\*\* Does not apply to members of the General Assembly

Judicial Plan

Sample Ages	Percent of Active Members Separating Within the Next Year				Pay Increase Assumptions for an Individual Employee				
	Withdrawal		Death		Disability		Merit and Seniority	Base (Economy)	
	Men	Women	Men	Women	Men	Women			
25	4.5%	4.5%	.05%	.04%	.01%	.01%	1.6%	4.0%	5.6%
30	4.0	3.7	.06	.04	.02	.01	1.2	4.0	5.2
35	2.8	2.6	.08	.05	.03	.02	0.9	4.0	4.9
40	2.0	2.1	.11	.07	.04	.03	0.4	4.0	4.4
45	1.5	1.9	.17	.09	.05	.04	0.3	4.0	4.3
50	1.5	1.7	.31	.14	.08	.07	0.2	4.0	4.2
55	1.5	1.2	.54	.24	.13	.12	0.2	4.0	4.2
60	1.2	0.6	.83	.44	.20	.19	0.0	4.0	4.0
65	0.9	0.4	1.31	.71	.20	.19	0.0	4.0	4.0

# Summary of Actuarial Assumptions

## Single Life Retirement Values - June 30, 2009

All Plans

**Present Value of \$1/Month the First Year**  
**Increasing 4%/2.56% Yearly**

Sample Attained Ages	Present Value of \$1/Month the First Year				Future Life Expectancy (Years)			
	Service		Disability		Service		Disability	
	Men	Women	Men	Women	Men	Women	Men	Women
40	\$203.02	\$209.33	\$181.62	\$191.13	39.41	43.25	30.06	33.73
45	193.32	201.25	168.02	179.05	34.67	38.46	25.67	29.17
50	181.62	191.13	152.30	165.06	30.06	33.73	21.50	24.82
55	168.02	179.05	134.31	148.86	25.67	29.17	17.57	20.70
60	152.30	165.06	114.80	130.48	21.50	24.82	13.99	16.82
65	134.31	148.86	95.56	110.86	17.57	20.70	10.91	13.32
70	114.80	130.48	76.93	91.81	13.99	16.82	8.29	10.36
75	95.56	110.86	60.70	73.41	10.91	13.32	6.23	7.83
80	76.93	91.81	47.70	57.87	8.29	10.36	4.70	5.89
85	60.70	73.41	36.91	45.39	6.23	7.83	3.51	4.44

| Actuarial Section

| Fiscal Year 2009

Missouri State Employees' Retirement System

## Summary of Actuarial Assumptions

Percent of Eligible Active Members Retiring Next Year - June 30, 2009

### MSEP

Retirement Ages	MSEP (Old Plan) Year of Eligibility			MSEP 2000 (New Plan) Year of Eligibility		
	1st Year	2nd Year	3rd Year	1st Year	2nd Year	3rd Year
48	20%				27%	
49	20	10%		27	14%	
50	20	10	8%	27	14	18%
51	20	10	8	27	14	18
52	20	10	8	27	14	18
53	20	10	8	27	14	18
54	20	10	8	27	14	18
55	25	10	12	27	14	25
56	20	10	12	27	14	52
57	20	10	12	22	14	20
58	20	10	30	22	14	20
59	20	10	30	22	14	20
60	25	10	30	25	14	25
61	20	10	30	20	14	20
62	30	15	50	20	22	35
63	20	12	40	15	20	30
64	20	12	40	20	20	20
65	30	15	50	25	20	30
66	20	12	40	20	20	25
67	20	12	40	20	20	20
68	20	12	40	20	20	20
69	20	12	40	20	20	20
70	20	12	40	20	20	20
71	20	12	40	20	20	20
72	20	12	40	20	20	20
73	20	12	40	20	20	20
74	20	12	40	20	20	20
75	100	100	100	50	50	50
76	100	100	100	50	50	50
77	100	100	100	75	75	75
78	100	100	100	100	100	100

### Judicial Plan

Retirement Ages	Percent Men	Percent Women
55	10%	8%
56	10	8
57	10	8
58	10	8
59	10	8
60	10	15
61	5	10
62	10	15
63	5	10
64	5	10
65	20	40
66	25	25
67	20	25
68	20	25
69	30	50
70	100	100

# Summary of Actuarial Assumptions

Early Retirement Patterns - June 30, 2009

MSEP

<b>Retirement Age</b>	<b>Rate</b>
50	3%
51	3
52	3
53	3
54	3
55	3
56	3
57	3
58	4
59	4
60	5
61	7
62	10
63	10
64	10
65	50
66	50
67	50
68	50
69	50
70	50
71	50
72	50
73	50
74	50
75	50
76	100
77	100
78	100
79	100
80	100

 **Retirement Age** | **Rate** || 50 | 3% |
51	3
52	3
53	3
54	3
55	3
56	3
57	3
58	4
59	4
60	5
61	7
62	10
63	10
64	10
65	50
66	50
67	50
68	50
69	50
70	50
71	50
72	50
73	50
74	50
75	50
76	100
77	100
78	100
79	100
80	100

# Summary of Actuarial Assumptions

Miscellaneous and Technical Assumptions - June 30, 2009

## Pay Increase Timing

Middle of fiscal year for MSEP.

Beginning of fiscal year for judges.

## Decrement Timing

Decrements of all types are assumed to occur mid-year.

## Eligibility Testing

Eligibility for benefits is determined based upon age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

## Benefit Service

Exact fractional service is used to determine the amount of benefit payable.

## Decrement Relativity

Decrement rates are used directly from the experience study, without adjustments for multiple decrement table effects.

## Decrement Operation

Disability and mortality decrements do not operate during the first five years of service. Disability and withdrawal do not operate during normal retirement eligibility.

## Normal Form of Benefit

The assumed normal form of benefit is the straight life form for the MSEP 2000 with 50% continuing to an eligible surviving spouse for the MSEP. No adjustment has been made for post-retirement option election changes. For judges, the assumed normal form of benefit is the straight-life form with 50% continuing to an eligible surviving spouse.

## Other Liability Adjustments

### ***MSEP 2000 Benefits for Active Employees***

- Normal retirement form of payment adjustment: 0.994
- Early retirement form of payment adjustment: 0.993

### ***Pre-Retirement Survivor Benefits for Spouse of Terminated-Vested Member***

Age	Male	Female
<30	3.20	2.32
30-39	1.89	1.52
40-49	1.32	1.18
>50	1.07	1.04

There are no other liability adjustments for judges.

## Incidence of Contributions

Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

Active and retired member data was reported as of May 31, 2009. It was brought forward to June 30, 2009, by adding one month of service for all active members and the June COLA for certain retired members. It is expected that this procedure resulted in a slight overstatement of total liabilities as of June 30, 2009. Financial information continues to be reported as of June 30. This procedure was instituted to provide sufficient time for the board of trustees to certify the appropriate contribution rate prior to the October 1 statutory deadline.

# Summary of Member Data Included in Valuations

Pension Trust Funds - June 30, 2009

Missouri State Employees' Retirement System

## Active Members

<b>Valuation Group</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Group Averages</b>		
			<b>Salary</b>	<b>Age (Yrs.)</b>	<b>Service (Yrs.)</b>
<b>MSEP</b>					
Regular state employees	51,275	\$1,794,011,214	\$ 34,988	45.0	10.4
Elected officials	6	652,047	108,675	47.8	4.5
Legislative clerks	44	1,453,499	33,034	58.6	20.3
Legislators	197	6,678,570	33,901	50.2	5.0
Uniformed water patrol	95	5,811,122	61,170	40.2	15.2
Conservation department	1,520	64,146,751	42,202	44.4	14.0
School-term salaried employees	1,882	125,925,453	66,910	54.7	18.9
Administrative law judges	38	3,723,431	97,985	54.0	15.3
Total MSEP group	<u>55,057</u>	<u>\$2,002,402,087</u>	36,370	45.3	10.8
<b>Judicial Plan</b>	397	\$ 45,505,512	\$114,623	55.4	11.8

## Retired Members

<b>Type of Benefit Payment</b>	<b>Number</b>	<b>Annual Benefits</b>	<b>Group Averages</b>	
			<b>Benefit</b>	<b>Age (Yrs.)</b>
<b>MSEP</b>				
Retirement	27,938	\$429,518,526	\$15,374	69.1
Disability	10	33,048	3,305	58.5
Survivor of active member	1,381	12,362,890	8,952	60.2
Survivor of retired member	2,308	23,443,840	10,158	74.4
Total MSEP group	<u>31,637</u>	<u>\$465,358,304</u>	14,709	69.1
<b>Judicial Plan</b>	463	\$ 23,955,671	\$51,740	74.9

## Others

<b>Group</b>	<b>Terminated-Vested</b>	<b>Leave of Absence</b>	<b>Long-Term Disability</b>
<b>MSEP</b>	17,259	238	968
<b>Judicial Plan</b>	45	0	0

# Active Members by Attained Age and Years of Service

June 30, 2009

MSEP

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
15-19	37	0	0	0	0	0	0	37	\$ 809,456
20-24	1,716	12	0	0	0	0	0	1,728	44,266,471
25-29	4,059	759	12	0	0	0	0	4,830	143,148,511
30-34	2,708	2,016	550	11	0	0	0	5,285	173,245,569
35-39	2,168	1,785	1,783	379	20	0	0	6,135	212,092,849
40-44	1,842	1,528	1,607	1,232	469	27	0	6,705	244,225,088
45-49	1,880	1,615	1,566	1,145	1,322	627	83	8,238	308,932,536
50-54	1,608	1,561	1,548	1,145	1,273	954	580	8,669	335,869,123
55-59	1,234	1,345	1,318	1,111	1,164	590	633	7,395	292,869,743
60	213	242	237	234	172	85	79	1,262	49,366,370
61	188	237	178	171	141	71	71	1,057	41,104,874
62	151	207	203	165	125	50	71	972	39,146,459
63	122	152	155	117	101	52	62	761	32,002,690
64	59	111	108	79	68	32	32	489	20,952,088
65	35	81	85	53	55	26	32	367	15,524,653
66	32	69	68	42	41	20	37	309	13,887,640
67	30	57	46	22	24	13	22	214	9,066,972
68	14	28	44	20	18	2	17	143	5,321,399
69	10	18	30	13	12	6	15	104	4,605,466
70 & Over	60	58	79	48	44	16	52	357	15,964,130
Totals	18,166	11,881	9,617	5,987	5,049	2,571	1,786	55,057	\$2,002,402,087

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

## Group Averages:

Age	45.3 years
Service	10.8 years
Annual Pay	\$36,370

# Active Members by Attained Age and Years of Service

June 30, 2009

## Judicial Plan

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
30-34	1	0	0	0	0	0	0	1	\$ 109,100
35-39	7	1	0	0	0	0	0	8	883,891
40-44	16	11	6	0	0	0	0	33	3,676,124
45-49	14	16	13	2	1	0	0	46	5,204,560
50-54	18	18	24	6	2	1	0	69	7,956,583
55-59	23	25	25	19	5	4	4	105	12,052,483
60	0	4	7	3	5	2	2	23	2,650,096
61	3	4	5	4	2	1	1	20	2,289,523
62	4	3	10	1	2	1	3	24	2,775,843
63	2	3	6	4	1	1	2	19	2,169,332
64	0	2	2	3	3	2	2	14	1,700,114
65	1	1	2	3	4	0	0	11	1,222,282
66	0	1	3	0	0	1	1	6	687,873
67	1	0	5	0	1	2	0	9	1,052,763
68	0	1	1	1	0	1	0	4	469,673
69	0	0	1	1	0	0	2	4	477,377
70	0	0	0	0	0	1	0	1	127,895
Totals	90	90	110	47	26	17	17	397	\$45,505,512

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

### Group Averages:

Age	55.4 years
Service	11.8 years
Annual Pay	\$114,623

## Schedules of Active Member Valuation Data

Six Years Ended June 30, 2009

MSEP

**Schedule of Active Member Valuation Data**

<b>Valuation Date</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase in Average Pay</b>
June 30, 2004	55,914	\$1,737,454,454	\$31,074	2.80%
June 30, 2005	55,944	1,806,600,560	32,293	3.92
June 30, 2006	54,493	1,777,277,138	32,615	1.00
June 30, 2007	54,363	1,846,643,330	33,969	4.15
June 30, 2008	54,542	1,916,527,398	35,139	3.44
June 30, 2009	55,057	2,002,402,087	36,370	3.50

ALJLAP\*

**Schedule of Active Member Valuation Data**

<b>Valuation Date</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase in Average Pay</b>
June 30, 2004	57	\$4,655,340	\$81,673	(0.05)%

\* Transferred to the MSEP during the year ended 6/30/2005.

Judicial Plan

**Schedule of Active Member Valuation Data**

<b>Valuation Date</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase in Average Pay</b>
June 30, 2004	391	\$39,878,499	\$101,991	(0.18)%
June 30, 2005	392	40,016,098	102,082	0.09
June 30, 2006	394	40,270,535	102,209	0.12
June 30, 2007	400	40,846,581	102,116	(0.09)
June 30, 2008	401	44,542,530	111,079	8.78
June 30, 2009	397	45,505,512	114,623	3.19

# Retirees and Beneficiaries Added and Removed

Six Years Ended June 30, 2009

Missouri State Employees' Retirement System

Fiscal Year 2009

Actuarial Section

MSEP

**Added to Rolls**

Fiscal Year Ended	Classification	Benefit Type	Number	Annual Allowances
June 30, 2004	General employees	Retirement	2,454	\$42,366,392
		Survivor of active	91	926,617
		Survivor of retired	171	1,965,930
		Disability	1	6,657
		Occupational disability	0	0
	Lincoln University - vested	Retirement	0	0
		Survivor of active	0	0
	Legislators	Retirement	10	182,124
		Survivor of active	1	16,311
		Survivor of retired	3	73,196
	Elected officials	Retirement	0	0
		Survivor of active	0	2,464
		Survivor of retired	0	1,045
	ALJs	Retirement	1	62,331
		Survivor of active	0	0
		Survivor of retired	2	58,362
June 30, 2005	General employees	Retirement	1,719	27,796,807
		Survivor of active	78	891,051
		Survivor of retired	206	2,036,085
		Disability	0	1,409
		Occupational disability	0	0
	Lincoln University - vested	Retirement	1	3,086
		Survivor of active	0	0
	Legislators	Retirement	31	606,743
		Survivor of active	2	15,361
		Survivor of retired	3	47,695
	Elected officials	Retirement	2	92,916
		Survivor of active	0	2,562
		Survivor of retired	0	1,089
	ALJs	Retirement	4	203,829
		Survivor of active	0	0
		Survivor of retired	0	4,987
June 30, 2006	General employees	Retirement	1,853	30,323,860
		Survivor of active	76	997,296
		Survivor of retired	214	2,460,805
		Disability	0	1,356
		Occupational disability	0	0
	Lincoln University - vested	Retirement	1	3,535
		Survivor of active	0	0
	Legislators	Retirement	6	141,548
		Survivor of active	0	4,398
		Survivor of retired	5	53,788
	Elected officials	Retirement	1	24,113
		Survivor of active	0	2,664
		Survivor of retired	0	1,132
	ALJs	Retirement	6	219,793
		Survivor of active	0	0
		Survivor of retired	1	30,686

## Missouri State Employees' Retirement System

Removed from Rolls		Rolls at End of Year		Percentage Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage Increase (Decrease) in Average Annual Allowances
Number	Annual Allowances	Number	Annual Allowances			
733	\$7,302,918	21,736	\$298,112,440	13.33%	\$13,715	4.36%
38	197,250	1,195	8,702,526	9.15	7,282	4.31
96	623,128	1,666	13,463,767	11.08	8,081	6.08
5	21,761	24	80,062	(15.87)	3,336	(1.85)
0	0	1	17,448	0.00	17,448	0.00
0	0	9	43,854	0.00	4,873	0.00
0	0	1	2,624	0.00	2,624	0.00
5	116,367	221	4,259,958	1.57	19,276	(0.73)
0	0	11	122,796	15.32	11,163	4.83
1	20,633	42	465,116	12.74	11,074	7.37
0	0	9	360,161	0.00	40,018	0.00
0	0	1	64,048	4.00	64,048	4.00
0	0	1	27,219	3.99	27,219	3.99
3	152,311	17	737,055	(10.88)	43,356	(0.40)
0	0	0	0	0.00	0	0.00
2	48,306	8	173,348	6.16	21,669	6.16
737	6,879,542	22,718	319,029,705	7.02	14,043	2.39
47	227,380	1,226	9,366,197	7.63	7,640	4.90
92	632,735	1,780	14,867,117	10.42	8,352	3.35
3	12,123	21	69,348	(13.38)	3,302	(1.01)
1	17,448	0	0	(100.00)	0	(100.00)
0	0	10	46,940	7.04	4,694	(3.67)
0	0	1	2,624	0.00	2,624	0.00
14	274,590	238	4,592,111	7.80	19,295	0.10
0	0	13	138,157	12.51	10,627	(4.80)
1	4,156	44	508,655	9.36	11,560	4.39
0	0	11	453,077	25.80	41,189	2.93
0	0	1	66,610	4.00	66,610	4.00
0	0	1	28,308	4.00	28,308	4.00
0	0	21	940,884	27.65	44,804	3.34
0	0	0	0	0.00	0	0.00
0	0	8	178,335	2.88	22,292	2.88
749	7,656,047	23,822	341,697,518	7.11	14,344	2.14
48	201,958	1,254	10,161,535	8.49	8,103	6.06
80	658,501	1,914	16,669,421	12.12	8,709	4.27
5	13,560	16	57,144	(17.60)	3,572	8.18
0	0	0	0	0.00	0	0.00
0	0	11	50,475	7.53	4,589	(2.24)
0	0	1	2,624	0.00	2,624	0.00
6	124,079	238	4,609,580	0.38	19,368	0.38
0	0	13	142,555	3.18	10,966	3.19
2	39,490	47	522,953	2.81	11,127	(3.75)
0	0	12	477,190	5.32	39,766	(3.45)
0	0	1	69,274	4.00	69,274	4.00
0	0	1	29,440	4.00	29,440	4.00
2	105,777	25	1,054,900	12.12	42,196	(5.82)
0	0	0	0	0.00	0	0.00
0	0	9	209,021	17.21	23,225	4.19

Source of Data: MOSERS benefit payment database as of June 30, 2009.

Other *Actuarial Section* information reported based on MOSERS data as of May 31, 2009.

*MSEP continued on pages 122-123*

# Retirees and Beneficiaries Added and Removed

Six Years Ended June 30, 2009

MSEP Continued from pages 120-121

Missouri State Employees' Retirement System

Fiscal Year 2009

Actuarial Section

<b>Fiscal Year Ended</b>	<b>Classification</b>	<b>Benefit Type</b>	<b>Added to Rolls</b>	
			<b>Number</b>	<b>Annual Allowances</b>
June 30, 2007	General employees	Retirement	2,211	\$37,839,159
		Survivor of active	89	897,874
		Survivor of retired	213	2,630,107
		Disability	0	1,104
		Occupational disability	0	0
		Retirement	0	0
		Survivor of active	0	0
		Legislators	19	303,741
		Retirement	1	8,157
		Survivor of active	5	95,976
June 30, 2008	Elected officials	Retirement	0	0
		Survivor of active	0	2,771
		Survivor of retired	0	1,178
		ALJs	0	35,846
		Retirement	0	0
		Survivor of active	0	6,071
		Survivor of retired	0	
		Legislators	2,159	36,365,696
		Retirement	91	971,449
		Survivor of retired	234	2,715,274
June 30, 2009	ALJs	Disability	0	900
		Occupational disability	0	0
		Retirement	2	5,478
		Survivor of active	0	0
		Legislators	9	147,136
		Retirement	0	4,489
		Survivor of active	5	114,053
		Elected officials	0	37,804
		Retirement	0	2,882
		Survivor of active	0	1,225
June 30, 2009	General employees	Survivor of retired	0	102,631
		Retirement	2	0
		Survivor of active	0	
		Survivor of retired	1	30,876
		Legislators	2,195	37,338,992
		Retirement	82	996,258
		Survivor of retired	251	3,077,466
		Disability	0	876
		Occupational disability	0	0
		Retirement	0	0
June 30, 2009	Lincoln University - vested	Survivor of active	0	0
		Legislators	0	
		Retirement	21	746,414
		Survivor of active	0	5,137
		Elected officials	4	84,108
		Retirement	2	105,141
		Survivor of active	0	2,997
		Survivor of retired	0	1,274
		ALJs	3	168,517
		Retirement	0	0
June 30, 2009	General employees	Survivor of active	2	57,238
		Survivor of retired	0	

## Missouri State Employees' Retirement System

Removed from Rolls		Rolls at End of Year		Percentage Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage Increase (Decrease) in Average Annual Allowances
Number	Annual Allowances	Number	Annual Allowances			
740	\$8,391,528	25,293	\$371,145,149	8.62%	\$14,674	2.30%
39	281,916	1,304	10,777,493	6.06	8,265	2.00
106	810,074	2,021	18,489,454	10.92	9,149	5.05
4	18,658	12	39,590	(30.72)	3,299	(7.64)
0	0	0	0	0.00	0	0.00
0	0	11	50,475	0.00	4,589	0.00
0	0	1	2,624	0.00	2,624	0.00
7	178,306	250	4,735,015	2.72	18,940	(2.21)
0	0	14	150,712	5.72	10,765	(1.83)
0	0	52	618,929	18.35	11,902	6.97
0	0	12	477,190	0.00	39,766	0.00
0	0	1	72,045	4.00	72,045	4.00
0	0	1	30,618	4.00	30,618	4.00
0	0	25	1,090,746	3.40	43,630	3.40
0	0	0	0	0.00	0	0.00
0	0	9	215,092	2.90	23,899	2.90
853	9,745,552	26,599	397,765,293	7.17	14,954	1.91
59	259,787	1,336	11,489,155	6.60	8,600	4.05
137	916,500	2,118	20,288,228	9.73	9,579	4.70
1	4,074	11	36,416	(8.02)	3,311	0.35
0	0	0	0	0.00	0	0.00
0	0	13	55,953	10.85	4,304	(6.21)
0	0	1	2,624	0.00	2,624	0.00
10	300,216	249	4,581,935	(3.23)	18,401	(2.84)
0	0	14	155,201	2.98	11,086	2.98
3	24,638	54	708,344	14.45	13,117	10.21
0	0	12	514,994	7.92	42,916	7.92
0	0	1	74,927	4.00	74,927	4.00
0	0	1	31,843	4.00	31,843	4.00
2	94,035	25	1,099,342	0.79	43,974	0.79
0	0	0	0	0.00	0	0.00
0	0	10	245,968	14.35	24,597	2.92
852	9,903,887	27,942	425,200,398	6.90	15,217	1.76
54	390,167	1,364	12,095,246	5.28	8,867	3.10
110	827,564	2,259	22,538,130	11.09	9,977	4.15
1	4,237	10	33,055	(9.23)	3,306	(0.15)
0	0	0	0	0.00	0	0.00
0	0	13	55,953	0.00	4,304	0.00
0	0	1	2,624	0.00	2,624	0.00
8	120,396	262	5,207,953	13.66	19,878	8.03
1	14,128	13	146,210	(5.79)	11,247	1.45
2	20,473	56	771,979	8.98	13,785	5.09
0	0	14	620,135	20.42	44,295	3.21
0	0	1	77,924	4.00	77,924	4.00
0	0	1	33,117	4.00	33,117	4.00
2	90,337	26	1,177,522	7.11	45,289	2.99
0	0	0	0	0.00	0	0.00
1	27,354	11	275,852	12.15	25,077	1.95

Source of Data: MOSERS benefit payment database as of June 30, 2009.

Other *Actuarial Section* information reported based on MOSERS data as of May 31, 2009.

# Retirees and Beneficiaries Added and Removed

Six Years Ended June 30, 2009

## Judicial Plan

Missouri State Employees' Retirement System

		<b>Added to Rolls</b>		<b>Removed from Rolls</b>		
		<b>Fiscal Year Ended</b>	<b>Benefit Type</b>	<b>Number</b>	<b>Allowances</b>	
Actuarial Section	June 30, 2004	Retirement	12	\$1,076,421	11	\$652,803
		Survivor of active	0	36,471	2	56,802
		Survivor of retired	7	269,344	4	86,633
		Disability	0	0	0	0
Fiscal Year 2009	June 30, 2005	Retirement	12	1,159,324	8	402,329
		Survivor of active	0	35,224	1	14,247
		Survivor of retired	6	211,269	6	75,799
		Disability	0	0	0	0
Fiscal Year 2009	June 30, 2006	Retirement	11	952,792	11	583,695
		Survivor of active	2	89,661	2	33,794
		Survivor of retired	6	219,711	4	79,701
		Disability	1	54,000	0	0
Fiscal Year 2009	June 30, 2007	Retirement	47	2,802,873	15	967,969
		Survivor of active	1	64,452	2	40,742
		Survivor of retired	13	526,008	4	91,948
		Disability	0	0	1	54,000
Fiscal Year 2009	June 30, 2008	Retirement	21	1,554,013	17	946,602
		Survivor of active	0	31,650	4	53,658
		Survivor of retired	11	387,194	8	181,387
		Disability	0	0	0	0
Fiscal Year 2009	June 30, 2009	Retirement	30	1,922,615	15	957,943
		Survivor of active	1	59,484	0	0
		Survivor of retired	9	418,266	2	61,344
		Disability	0	0	0	0

## Missouri State Employees' Retirement System

### **Rolls at End of Year**

<b>Number</b>	<b>Annual Allowances</b>	<b>Percentage Increase (Decrease) in Annual Allowances</b>	<b>Average Annual Allowances</b>	<b>Percentage Increase (Decrease) in Average Annual Allowances</b>
271	\$15,091,466	2.89%	\$55,688	2.51%
42	918,395	(2.17)	21,867	2.49
82	1,867,560	10.84	22,775	6.79
0	0	0.00	0	0.00
275	15,848,461	5.02	57,631	3.49
41	939,372	2.28	22,912	4.78
82	2,003,030	7.25	24,427	7.25
0	0	0.00	0	0.00
275	16,217,558	2.33	58,973	2.33
41	995,239	5.95	24,274	5.94
84	2,143,040	6.99	25,512	4.44
1	54,000	100.00	54,000	100.00
307	18,052,462	11.31	58,803	(0.29)
40	1,018,949	2.38	25,474	4.71
93	2,577,100	20.25	27,711	7.94
0	0	(100.00)	0	(100.00)
311	18,659,873	3.36	60,000	2.00
36	996,941	(2.16)	27,693	8.01
96	2,782,907	7.99	28,989	4.41
0	0	0.00	0	0.00
326	19,624,545	5.17	60,198	0.33
37	1,056,425	5.97	28,552	3.01
103	3,139,829	12.83	30,484	4.90
0	0	0.00	0	0.00

Source of Data: MOSERS benefit payment database as of June 30, 2009.

Other *Actuarial Section* information reported based on MOSERS data as of May 31, 2009.

# Short-Term Solvency Test

Pension Trust Funds - Ten Years Ended June 30, 2009

MSEP

## Actuarial Accrued Liabilities for

Fiscal Year	Actuarial Accrued Liabilities for			Actuarial Value of Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for		
	Current Member Contributions (1)	Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)		(1)	(2)	(3)
2000	\$0	\$2,142,487,495	\$3,778,196,697	\$5,511,714,616	100.0%	100.0%	89.2%
2001	0	2,496,277,500	3,568,889,216	5,881,232,850	100.0	100.0	94.8
2002	0	2,716,457,033	3,577,815,242	6,033,133,598	100.0	100.0	92.7
2003	0	3,016,029,050	3,646,262,356	6,057,329,072	100.0	100.0	83.4
2004	0	3,405,053,804	3,824,957,124	6,118,214,495	100.0	100.0	70.9
2005	0	3,629,506,014	3,948,522,003	6,435,344,102	100.0	100.0	71.1
2006	0	3,876,349,145	4,136,856,269	6,836,567,188	100.0	100.0	71.6
2007	0	4,208,621,537	4,291,807,104	7,377,289,283	100.0	100.0	73.8
2008	0	4,408,682,437	4,719,665,033	7,838,495,768	100.0	100.0	72.7
2009	0	4,737,859,976	4,756,946,739	7,876,079,342	100.0	100.0	66.0

| Actuarial Section

Fiscal Year 2009

ALJLAP\*

## Actuarial Accrued Liabilities for

Fiscal Year	Actuarial Accrued Liabilities for			Actuarial Value of Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for		
	Current Member Contributions (1)	Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)		(1)	(2)	(3)
2000	\$0	\$7,526,118	\$ 8,995,625	\$13,191,825	100.0%	100.0%	63.0%
2001	0	7,534,368	9,275,594	14,410,199	100.0	100.0	74.1
2002	0	8,268,650	9,906,692	15,172,619	100.0	100.0	69.7
2003	0	9,709,096	10,237,391	15,626,461	100.0	100.0	57.8
2004	0	9,188,086	11,196,127	16,238,804	100.0	100.0	63.0

Missouri State Employees' Retirement System

Judicial Plan

## Actuarial Accrued Liabilities for

Fiscal Year	Actuarial Accrued Liabilities for			Actuarial Value of Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for		
	Current Member Contributions (1)	Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)		(1)	(2)	(3)
2000	\$0	\$131,199,867	\$110,597,474	\$13,861,769	100.0%	10.6%	0.0%
2001	0	143,163,718	104,815,186	22,613,050	100.0	15.8	0.0
2002	0	149,135,989	106,979,463	29,651,113	100.0	19.9	0.0
2003	0	157,923,805	109,126,052	34,566,516	100.0	21.9	0.0
2004	0	162,539,486	117,857,978	39,120,142	100.0	24.1	0.0
2005	0	168,703,822	123,600,064	44,223,509	100.0	26.2	0.0
2006	0	171,677,032	137,325,720	51,652,867	100.0	30.1	0.0
2007	0	199,489,503	127,176,870	61,903,516	100.0	31.0	0.0
2008	0	216,369,879	138,426,574	73,194,379	100.0	33.8	0.0
2009	0	231,505,591	137,601,250	81,337,881	100.0	35.1	0.0

## Derivation of Experience Gain (Loss)

### MSEP

Actual experience will never coincide exactly with assumed experience (except by coincidence). Gains and losses may offset each other over a period of years, but sizeable year-to-year variations from assumed experience are common. Detail on the derivation of the experience gain (loss) is shown below.

	<u>\$ Millions</u>	(Valuation Date as of June 30)	
		Actuarial Gain (Loss) As a % of Beginning Accrued Liabilities	
(1) Unfunded actuarial accrued liability (UAAL) at start of year	1,289.9	2000	2.7%
(2) Normal cost from last valuation	174.4	2001	(4.4)
(3) Actual employer contributions	255.4	2002	(3.8)
(4) Interest accrual: (1) x .085 + [(2) - (3)] x (.085 ÷ 2)	106.2	2003	(6.4)
(5) Expected UAAL at end of year before changes: (1) + (2) - (3) + (4)	1,315.1	2004	(6.0)
(6) Change from any changes in benefits, assumptions, or methods	(168.0)	2005	(3.4)
(7) Expected UAAL after changes: (5) + (6)	1,147.1	2006	(0.1)
(8) Actual UAAL at end of year	1,618.7	2007	1.0
(9) Gain (loss) (7) - (8)	(471.6)	2008	0.1
(10) Gain (loss) as a percent of actuarial accrued liabilities at start of year (\$9,128)	(5.2)%	2009	(5.2)

### Judicial Plan

The actuarial gains or losses realized in the operation of the retirement system provide an experience test. Gains and losses often cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below, along with a year-by-year comparative schedule.

	<u>\$ Millions</u>	(Valuation Date as of June 30)	
		Actuarial Gain (Loss) As a % of Beginning Accrued Liabilities	
(1) Unfunded actuarial accrued liability (UAAL) at start of year	281.6	2000	(1.7)%
(2) Employer normal cost middle of year	9.3	2001	(3.2)
(3) Employer contributions	27.7	2002	(0.2)
(4) Interest		2003	(1.6)
a. on (1)	23.9	2004	(1.0)
b. on (2)	0.4	2005	(0.1)
c. on (3)	1.1	2006	(1.1)
d. total [a + b - c]	23.2	2007	(0.6)
(5) Expected UAAL end of year before changes	286.4	2008	(3.0)
(6) Change in UAAL end of year		2009	(1.8)
a. amendments			
b. assumptions and technical corrections	(5.0)		
c. methods			
d. total	(5.0)		
(7) Expected UAAL after changes: (5) + (6d.)	281.4		
(8) Actual UAAL at end of year	287.8		
(9) Gain (loss) (7) - (8)	(6.4)		
(10) Gain (loss) as a percent of actuarial accrued liabilities at start of year (\$354.8)	(1.8)%		

## Summary of Plan Provisions

MSEP and MSEP 2000\* - Comparison of Plans for General State Employees - June 30, 2009

Missouri State Employees' Retirement System

Fiscal Year 2009

Actuarial Section

Plan Provision	MSEP	MSEP 2000
<b>Membership eligibility</b>	Members who work in a position normally requiring at least 1,040 hours of work a year.	Members hired for the first time on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.  Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.
<b>Normal retirement eligibility</b>	Age 65 and active with 4 years of service, Age 65 with 5 years of service, Age 60 with 15 years of service, or “Rule of 80” - minimum age 48.	Age 62 with 5 years of service or “Rule of 80” - minimum age 48.
<b>Early retirement eligibility</b>	Age 55 with 10 years of service.	Age 57 with 5 years of service.
<b>Benefit</b>		
Life benefit	1.6% x final average pay (FAP) x service.	1.7% x FAP x service.
Temporary benefit	Not available.	0.8% x FAP x service (until age 62 - only if retiring under “Rule of 80”).
<b>Vesting</b>	5 years of service.	5 years of service.
<b>In-service cost-of-living adjustment (COLA)</b>	COLA given for service beyond age 65. COLA provisions are determined by employment date.	Not available.
<b>COLA</b>	If hired before August 28, 1997, annual COLA is equal to 80% of the change in the consumer price index (CPI) with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.  If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.	Annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.
<b>Survivor benefit (Death before retirement)</b>	Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.	Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the members' Life Income Annuity paid to eligible children.
Non duty-related death		
Duty-related death	Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).	Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).
<b>Optional forms of payment (Death after retirement)</b>	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"><li>• Life Income Annuity</li><li>• Unreduced Joint &amp; 50% Survivor</li><li>• Joint &amp; 100% Survivor</li><li>• 60 or 120 Guaranteed Payments</li><li>• BackDROP</li></ul>	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"><li>• Life Income Annuity</li><li>• Joint &amp; 50% Survivor</li><li>• Joint &amp; 100% Survivor</li><li>• 120 or 180 Guaranteed Payments</li><li>• BackDROP</li></ul>

\* This summary describes the plan provisions of the RSMo, as amended, that governed the programs, which MOSERS administered during the period covered by this report. It does not overrule any applicable statute or administrative rule and, in the event of a conflict, the applicable statute or rule would apply. The MSEP 2000 became effective July 1, 2000.

## Summary of Plan Provisions

MSEP and MSEP 2000 - Comparison of Plans for Uniformed Members of the Water Patrol - June 30, 2009

Plan Provision	MSEP	MSEP 2000
<b>Membership eligibility</b>	Members who work in a position normally requiring at least 1,040 hours of work a year.	Members hired for the first time on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.  Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.
<b>Normal retirement eligibility</b>	Age 55 and active with 4 years of service, Age 55 with 5 years of service, or "Rule of 80" - minimum age 48.	Age 62 with 5 years of service or "Rule of 80" - minimum age 48.
<b>Early retirement eligibility</b>	Not available.	Age 57 with 5 years of service.
<b>Benefit</b>		
Life benefit	1.6% x FAP x service increased by 33.3%.	1.7% x FAP x service.
Temporary benefit	Not available.	0.8% x FAP x service (until age 62 - only if retiring under "Rule of 80").
<b>Vesting</b>	5 years of service.	5 years of service.
<b>In-service COLA</b>	COLA given for service beyond age 65. COLA provisions are determined by employment date.	Not available.
<b>COLA</b>	If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.  If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.	Annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.
<b>Survivor benefit (Death before retirement)</b>	Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.	Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.
Duty-related death	Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).	Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).
<b>Optional forms of payment (Death after retirement)</b>	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"><li>• Life Income Annuity</li><li>• Unreduced Joint &amp; 50% Survivor</li><li>• Joint &amp; 100% Survivor</li><li>• 60 or 120 Guaranteed Payments</li><li>• BackDROP</li></ul>	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"><li>• Life Income Annuity</li><li>• Joint &amp; 50% Survivor</li><li>• Joint &amp; 100% Survivor</li><li>• 120 or 180 Guaranteed Payments</li><li>• BackDROP</li></ul>

# Summary of Plan Provisions

MSEP and MSEP 2000 - Comparison of Plans for Legislators - June 30, 2009

Missouri State Employees' Retirement System

Fiscal Year 2009

Actuarial Section

Plan Provision	MSEP	MSEP 2000
<b>Membership eligibility</b>	Elected to the General Assembly.	Elected to the General Assembly on or after July 1, 2000.
<b>Normal retirement eligibility</b>	Age 55 with 3 full-biennial assemblies.	Age 55 with 3 full-biennial assemblies or "Rule of 80" - minimum age 50.
<b>Early retirement eligibility</b>	Not available.	Not available.
<b>Benefit</b> Life benefit	\$150 per month per biennial assembly.	(Monthly base pay ÷ 24) x service capped at 100% of pay.
Temporary benefit	Not available.	Not available.
<b>Vesting</b>	3 full-biennial assemblies.	3 full-biennial assemblies.
<b>In-service COLA</b>	COLA given for service beyond age 65. COLA provisions are determined by employment date.	Not available.
<b>COLA</b>	If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.  If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.	Benefit adjusted each year based on the percentage increase in the current pay for an active member of the General Assembly.
<b>Survivor benefit (Death before retirement)</b> Non duty-related death	Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.	Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.
Duty-related death	Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).	Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).
<b>Optional forms of payment (Death after retirement)</b>	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"><li>• Life Income Annuity</li><li>• Unreduced Joint &amp; 50% Survivor</li><li>• Joint &amp; 100% Survivor</li><li>• 60 or 120 Guaranteed Payments</li></ul>	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"><li>• Life Income Annuity</li><li>• Joint &amp; 50% Survivor</li><li>• Joint &amp; 100% Survivor</li><li>• 120 or 180 Guaranteed Payments</li></ul>

# Summary of Plan Provisions

MSEP and MSEP 2000 - Comparison of Plans for Elected Officials - June 30, 2009

Plan Provision	MSEP	MSEP 2000
<b>Membership eligibility</b>	Elected to state office.	Elected to state office on or after July 1, 2000.
<b>Normal retirement eligibility</b>	Age 65 with 4 years of service, Age 60 with 15 years of service, or “Rule of 80” - minimum age 48.	Age 55 with 4 years of service or “Rule of 80” - minimum age 50.
<b>Early retirement eligibility</b>	Age 55 with 10 years of service.	Not available.
<b>Benefit</b> Life benefit	<u>12 or more years of service</u> 50% or current pay for highest position held. <u>Less than 12 years of service</u> 1.6% x FAP x service.	(Monthly base pay ÷ 24) x service capped at 12 years or 50% of pay.
Temporary benefit	Not available.	Not available.
<b>Vesting</b>	4 years of service.	4 years of service.
<b>In-service COLA</b>	COLA provisions determined by amount of service relative to 12 years and date of employment.	Not available.
<b>COLA</b>	<u>12 or more years of service</u> COLA is equal to the percentage increase in the current pay of an active elected state official in the highest position held. <u>Less than 12 years of service</u> If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.  If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.	Benefit adjusted each year based on the percentage increase in the current pay for an active elected state official in the highest position held.
<b>Survivor benefit (Death before retirement)</b> Non duty-related death	Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.	Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.
Duty-related death	Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).	Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).
<b>Optional forms of payment (Death after retirement)</b>	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"><li>• Life Income Annuity</li><li>• Unreduced Joint &amp; 50% Survivor</li><li>• Joint &amp; 100% Survivor</li><li>• 60 or 120 Guaranteed Payments</li></ul>	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"><li>• Life Income Annuity</li><li>• Joint &amp; 50% Survivor</li><li>• Joint &amp; 100% Survivor</li><li>• 120 or 180 Guaranteed Payments</li></ul>

# Summary of Plan Provisions

Administrative Law Judges and Legal Advisors\* - June 30, 2009

Plan Provision	Requirement
<b>Membership eligibility</b>	Administrative law judge or legal advisor in the Division of Workers' Compensation, a member or legal counsel of the Labor and Industrial Relations Commission, chairperson of the State Board of Mediation, or an administrative hearing commissioner hired prior to April 26, 2005.
<b>Normal retirement eligibility</b>	Age 62 with 12 years of service, Age 60 with 15 years of service, or Age 55 with 20 years of service.
<b>Reduced retirement eligibility</b>	Age 65 with less than 12 years of service with reduced benefit, based upon years of service relative to 12 years.
<b>Benefit formula</b>	<u>12 or more years of service</u> 50% of the average highest 12 consecutive months of salary.
<b>Vesting</b>	Immediate.
<b>In-service COLA</b>	Not available.
<b>COLA</b>	If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.  If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.
<b>Survivor benefit (Death before retirement)</b>	Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service relative to 12 years.
<b>Survivor benefit (Death after retirement)</b>	Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.

\* All new administrative law judges and legal advisors hired on or after April 26, 2005, who were not previously covered by a retirement system under Chapter 287, RSMo, participate in the MSEP, which is covered under Chapter 104, RSMo.

# Summary of Plan Provisions

Judicial Plan - June 30, 2009

Plan Provision	Requirement
<b>Membership eligibility</b>	Must be a judge or commissioner of the supreme court or the court of appeals, a judge of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, a justice of the peace, or a commissioner or deputy commissioner of the circuit court appointed after February 29, 1972; a commissioner of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo; a commissioner of the drug court pursuant to Section 478.466, RSMo; or a commissioner of the family court.
<b>Normal retirement eligibility</b>	Age 62 with 12 years of service, Age 60 with 15 years of service, or Age 55 with 20 years of service.
<b>Reduced retirement eligibility</b>	Age 62 with less than 12 years of service or age 60 with less than 15 years of service with a reduced benefit based on years of service relative to 12 or 15 years.
<b>Benefit formula</b>	<u>12 or 15 more years of service</u> 50% of the FAP. <u>Less than 12 or 15 years of service</u> <i>If between age 60 and 62</i> $(\text{years of service} \div 15) \times 50\%$ of compensation on the highest court served. <i>If age 62</i> $(\text{years of service} \div 12) \times 50\%$ of compensation on the highest court served.
<b>Vesting</b>	Immediate.
<b>In-service COLA</b>	Judges who are at least age 60 and work beyond the date first eligible for unreduced benefits will receive COLAs for each year worked beyond normal retirement eligibility. COLA provisions are determined by date of employment.
<b>COLA</b>	If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.  If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.
<b>Survivor benefit (Death before retirement)</b>	Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service at age 70.
<b>Survivor benefit (Death after retirement)</b>	Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.

# Summary of Plan Provisions

Life Insurance Plans - June 30, 2009

MOSERS administers basic and optional term life insurance plans for eligible state employees and retirees.

Active Members*	Requirement
<b>Basic life insurance</b> An amount equal to one times annual salary (with a minimum of \$15,000) while actively employed.	Actively employed in an eligible state position resulting in membership in MOSERS.
<b>Duty-related death benefit</b> Duty-related death benefit equivalent to two times the annual salary the member was earning at the time of death in addition to the basic life insurance amount of one times annual salary.	Actively employed in an eligible state position resulting in membership in MOSERS.
<b>Optional life insurance</b> Additional life insurance may be purchased in a flat amount in multiples of \$10,000 not to exceed the maximum (lesser of six times annual salary or \$800,000). Spouse coverage may be purchased in multiples of \$10,000 up to a maximum of \$100,000; however, the amount of spouse coverage cannot exceed the amount of optional life insurance coverage the member has purchased. Coverage for children is available in a flat amount of \$10,000 per child.	Actively employed in an eligible state position resulting in membership in MOSERS.

\* Terminating employees may convert coverage up to the amount they had as an active employee at individual rates.

Retired Members	Requirement
<b>Basic life insurance at retirement</b> \$5,000 basic life insurance during retirement.	Must retire directly from active employment.
<b>Optional life insurance at retirement (MSEP)</b> An employee may retain up to the lesser of \$60,000 or the amount of optional life insurance coverage held at the time of retirement at the group rate and may convert any remaining basic and optional life insurance at individual rates.	Must retire directly from active employment.
<b>Optional life insurance at retirement (MSEP 2000)</b> Under "Rule of 80", an employee may retain the current amount of coverage prior to retirement until age 62 at which time coverage is reduced to \$60,000, and may convert any remaining basic and optional life insurance at individual rates. Coverage for spouse and/or children ends at member's retirement and may be converted at individual rates.	Must retire directly from active employment.

## Summary of Plan Provisions

Long-Term Disability (LTD) Plans - June 30, 2009

MOSERS administers the LTD Plan for eligible state employees who become disabled during active employment.

Active Members	Requirement
<b>General state employees, Legislators, and Elected state officials</b> Members of MOSERS in a position normally requiring 1,000 hours of work a year are covered under the LTD plan, unless they work for a state agency which has its own LTD plan.	<b>Long-term disability</b> - Eligible participants receive 60% of their compensation minus primary social security, workers' compensation, and employer provided income. Benefits commence after 90 days of disability or after sick leave expires, whichever occurs last. LTD benefits cease upon the earliest of (i) when disability ends, (ii) when the member is first eligible for normal retirement benefits or is receiving early retirement benefits, (iii) when the member returns to work, or (iv) upon a member's death.
<b>Water patrol</b>	Uniformed members who are eligible for statutory occupational disability receive benefits equal to 50% of compensation with no offset for social security at the time of disability. For nonoccupational disabilities, eligible participants receive the same benefit as general employees.
<b>Judges</b>	In addition to the disability benefits provided to general employees, judges also receive benefits under the state constitution. Participants receive 50% of salary until the current term expires.

## Changes in Plan Provisions

There were no plan provision changes during FY09.

# Actuarial Present Values

As of June 30, 2009

MSEP

Actuarial Section

Fiscal Year 2009

Missouri State Employees' Retirement System

Actuarial Present Value June 30, 2009 for	Actuarial Present Value	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities
<b>Active members</b>			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	\$4,528,190,377	\$ 735,397,337	\$3,792,793,040
Disability benefits likely to be paid to present active members who become totally and permanently disabled	141,149,398	65,167,648	75,981,750
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	110,913,117	29,469,074	81,444,043
Separation benefits likely to be paid to present active members	483,990,177	233,367,065	250,623,112
Active member totals	<u>\$5,264,243,069</u>	<u>\$1,063,401,124</u>	<u>4,200,841,945</u>
<b>Members on leave of absence &amp; LTD</b>			
Service retirement benefits based on service rendered before the valuation date			106,775,614
<b>Terminated-vested members</b>			
Service retirement benefits based on service rendered before the valuation date			449,329,180
<b>Retired lives</b>			4,737,303,090
<b>BackDROP installment payments incurred, but not yet paid</b>			556,886
<b>Total actuarial accrued liability</b>			9,494,806,715
<b>Actuarial value of assets</b>			(7,876,079,342)
<b>Unfunded actuarial accrued liability</b>			<u>\$1,618,727,373</u>

Judicial Plan

Actuarial Present Value June 30, 2009 for	Actuarial Present Value	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities
<b>Active members</b>			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	\$178,244,953	\$54,763,034	\$123,481,919
Disability benefits likely to be paid to present active members who become totally and permanently disabled	848,581	812,918	35,663
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	5,518,862	3,168,814	2,350,048
Active member totals	<u>\$184,612,396</u>	<u>\$58,744,766</u>	<u>125,867,630</u>
<b>Retired lives</b>			231,505,591
<b>Terminated-vested members</b>			11,733,620
<b>Members on LTD</b>			0
<b>Total actuarial accrued liability</b>			369,106,841
<b>Actuarial value of assets</b>			(81,337,881)
<b>Unfunded actuarial accrued liability</b>			<u>\$287,768,960</u>



A clear measurement of **time** to assess the financial condition of the plan.

## **STATISTICAL SECTION**

- 137      Summary**
- 138      Changes in Net Assets - Last Ten Fiscal Years**
- 140      Deductions from Net Assets for Benefits and Refunds by Type - Last Ten Fiscal Years**
- 142      Valuation Assets vs. Pension Liabilities - Pension Trust Funds - Last Ten Fiscal Years**
- 146      Contribution Rates - Last Ten Fiscal Years**
- 147      Membership in Retirement Plans - Last Ten Fiscal Years**
- 148      Benefit Recipients by Type of Retirement and Option Selected**
- 150      Distribution of Benefit Recipients by Location**
- 151      Benefits Payable June 30, 2009 - Tabulated by Option and Type of Benefit**
- 152      Average Monthly Benefit Amounts - Last Ten Fiscal Years ended June 30, 2009**
- 159      Retirees and Beneficiaries - Tabulated by Fiscal Year of Retirement**
- 160      MSEP Total Benefits Payable June 30, 2009 -  
                Tabulated by Attained Ages of Benefit Recipients**
- 161      Judicial Plan Total Benefits Payable June 30, 2009 -  
                Tabulated by Attained Ages of Benefit Recipients**

# Summary

## Plan Membership

Membership in the pension trusts administered by MOSERS increased by 2,220. Active members increased by 511, retired members and their beneficiaries increased by 1,528, and terminated-vested members increased by 181. Membership data for the last ten years ended June 30, 2009, can be found on page 147. Page 150 depicts the location of benefit recipients, showing that the majority remain in the state of Missouri after retirement.

## Net Assets vs. Liabilities

The charts on pages 142-145 graphically represent the funding progress of the pension plans for the ten years ended June 30, 2009. The area charts in the middle of the pages show the portion of the pension liabilities that are unfunded compared to the portion covered by assets in the trust funds. The charts on the bottom of the pages illustrate the funded ratio of the plans for the ten years ended June 30, 2009.

The existence of the unfunded actuarial accrued liabilities is not necessarily an indication of financial problems, but the fluctuations are important and must be monitored and controlled.

The remainder of this section contains various statistical and historical data considered useful in evaluating the condition of the plans.

All nonaccounting data is taken from MOSERS' internal sources except for that information which is derived from the actuarial valuations (pages 142-147, 151, and 160-161). Member data may differ between some schedules since the valuations are performed using data as of May 31 each year.

# Changes in Net Assets

Last Ten Fiscal Years

	FY00	FY01	FY02	FY03
<b>MSEP</b>				
<b>Additions</b>				
Employer contributions	\$202,330,547	\$215,750,128	\$209,515,026	\$156,576,150
Member service purchases	1,991,206	1,918,572	3,913,426	3,690,820
Service transfers in	3,468,697	167,640	48,840	53,119
Investment income (net of expenses)	402,878,683	(112,164,123)	(348,106,057)	332,901,027
Other	629,924	418,663	447,462	437,574
Total additions to plan net assets	<u>611,299,057</u>	<u>106,090,880</u>	<u>(134,181,303)</u>	<u>493,658,690</u>
<b>Deductions</b>				
Benefits	179,690,822	217,862,853	268,480,982	319,607,447
Refunds	889	0	0	4,019
Service transfers out	18,609	31,482	27,970	2,191,487
Administrative expenses	5,487,531	5,749,965	5,753,812	5,954,365
Total deductions from plan net assets	<u>185,197,851</u>	<u>223,644,300</u>	<u>274,262,764</u>	<u>327,757,318</u>
Transfer from ALJLAP plan	0	0	0	0
<b>Change in net assets</b>	<u>\$426,101,206</u>	<u>\$(117,553,420)</u>	<u>\$(408,444,067)</u>	<u>\$165,901,372</u>
ALJLAP Plan				
<b>Additions</b>				
Employer contributions	\$ 807,022	\$ 1,074,946	\$ 1,072,562	\$ 951,023
Investment income (net of expenses)	961,336	(273,380)	(874,249)	862,381
Other	1,503	1,020	1,124	1,134
Total additions to plan net assets	<u>1,769,861</u>	<u>802,586</u>	<u>199,437</u>	<u>1,814,538</u>
<b>Deductions</b>				
Benefits	755,574	776,422	836,615	969,918
Administrative expenses	13,094	14,015	14,450	15,425
Total deductions from plan net assets	<u>768,668</u>	<u>790,437</u>	<u>851,065</u>	<u>985,343</u>
Transfer to MSEP plan	0	0	0	0
<b>Change in net assets</b>	<u>\$ 1,001,193</u>	<u>\$ 12,149</u>	<u>\$ (651,628)</u>	<u>\$ 829,195</u>
Judicial Plan				
<b>Additions</b>				
Employer contributions	\$ 19,988,676	\$ 22,473,913	\$ 22,088,485	\$ 20,802,140
Investment income (net of expenses)	869,566	(391,124)	(1,680,566)	1,932,815
Other	1,360	1,460	2,160	2,541
Total additions to plan net assets	<u>20,859,602</u>	<u>22,084,249</u>	<u>20,410,079</u>	<u>22,737,496</u>
<b>Deductions</b>				
Benefits	13,292,188	15,010,098	15,943,642	16,870,011
Administrative expenses	11,844	20,051	27,778	34,571
Total deductions from plan net assets	<u>13,304,032</u>	<u>15,030,149</u>	<u>15,971,420</u>	<u>16,904,582</u>
<b>Change in net assets</b>	<u>\$ 7,555,570</u>	<u>\$ 7,054,100</u>	<u>\$ 4,438,659</u>	<u>\$ 5,832,914</u>
Internal Service Fund				
<b>Operating revenues</b>				
Premium receipts	\$ 20,119,784	\$ 23,185,529	\$ 24,753,708	\$ 25,223,043
Deferred compensation receipts	0	0	0	0
Miscellaneous income	436,488	464,351	436,489	436,494
Total operating revenues	<u>20,556,272</u>	<u>23,649,880</u>	<u>25,190,197</u>	<u>25,659,537</u>
<b>Operating expenses</b>				
Premium disbursements	20,049,507	22,480,704	24,675,520	25,169,883
Deferred compensation disbursements	0	0	0	0
Premium refunds	70,277	704,825	78,188	53,160
Administrative expenses	519,271	410,906	439,232	421,507
Total operating expenses	<u>20,639,055</u>	<u>23,596,435</u>	<u>25,192,940</u>	<u>25,644,550</u>
<b>Non-operating revenues</b>				
Investment income	68,349	81,717	47,767	31,179
<b>Change in net assets</b>	<u>\$ (14,434)</u>	<u>\$ 135,162</u>	<u>\$ 45,024</u>	<u>\$ 46,166</u>

FY04	FY05	FY06	FY07	FY08	FY09
\$ 164,691,836 3,426,367 166,510 873,793,645 469,959	\$ 194,524,059 4,122,001 29,397 727,341,314 1,231,658	\$ 227,233,195 3,072,315 161,613 728,526,971 501,512	\$ 239,488,751 3,460,923 172,936 1,283,573,438 542,266	\$ 249,770,156 3,085,133 38,069 108,497,467 572,274	\$ 252,105,008 3,235,999 28,075 (1,508,376,715) 619,060
1,042,548,317	927,248,429	959,495,606	1,527,238,314	361,963,099	(1,252,388,573)
367,248,099 8,585 529,177 5,694,082 373,479,943	367,431,297 0 199,201 6,228,609 373,859,107	400,169,563 1,341 133,866 6,486,597 406,791,367	447,240,771 0 51,980 6,689,710 453,982,461	479,853,891 0 251,443 6,950,878 487,056,212	511,466,555 0 0 7,088,483 518,555,038
0	18,157,148	0	0	0	0
\$ 669,068,374	\$ 571,546,470	\$ 552,704,239	\$ 1,073,255,853	\$(125,093,113)	\$(1,770,943,611)
\$ 945,950 2,344,262 1,261 3,291,473	\$ 1,124,924 2,057,375 3,484 3,185,783	\$ 0 0 0 0	\$ 0 0 0 0	\$ 0 0 0 0	\$ 0 0 0 0
1,003,355 15,276 1,018,631 0	749,197 17,618 766,815 (18,157,148)	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
\$ 2,272,842	\$ (15,738,180)	\$ 0	\$ 0	\$ 0	\$ 0
\$ 20,636,314 5,800,076 3,119 26,439,509	\$ 21,852,985 5,409,107 9,160 27,271,252	\$ 22,401,569 5,933,531 4,085 28,339,185	\$ 23,745,467 11,356,312 4,798 35,106,577	\$ 26,215,309 1,043,940 5,506 27,264,755	\$ 27,725,882 (15,847,382) 6,504 11,885,004
17,658,269 37,796 17,696,065 \$ 8,743,444	18,396,397 46,321 18,442,718 \$ 8,828,534	19,091,587 52,830 19,144,417 \$ 9,194,768	20,595,504 59,187 20,654,691 \$ 14,451,886	22,058,085 66,880 22,124,965 \$ 5,139,790	23,232,088 74,473 23,306,561 \$ (11,421,557)
\$ 25,771,703 0 436,489 26,208,192	\$ 27,305,305 0 436,489 27,741,794	\$ 26,415,236 0 436,501 26,851,737	\$ 27,101,931 0 436,502 27,538,433	\$ 27,957,666 60,393,973 536,493 88,888,132	\$ 28,990,057 75,661,047 1,027,380 105,678,484
25,736,083 0 35,620 474,040 26,245,743	27,271,948 0 33,357 466,531 27,771,836	26,379,919 0 35,317 487,699 26,902,935	27,063,815 0 38,116 527,040 27,628,971	27,927,265 60,371,802 30,401 708,100 89,037,568	28,968,981 75,683,218 21,076 819,581 105,492,856
24,353	49,326	85,124	117,729	77,396	20,755
\$ (13,198)	\$ 19,284	\$ 33,926	\$ 27,191	\$(72,040)	\$ 206,383

## Deductions from Net Assets for Benefits and Refunds by Type

Last Ten Fiscal Years

Fiscal Year 2009

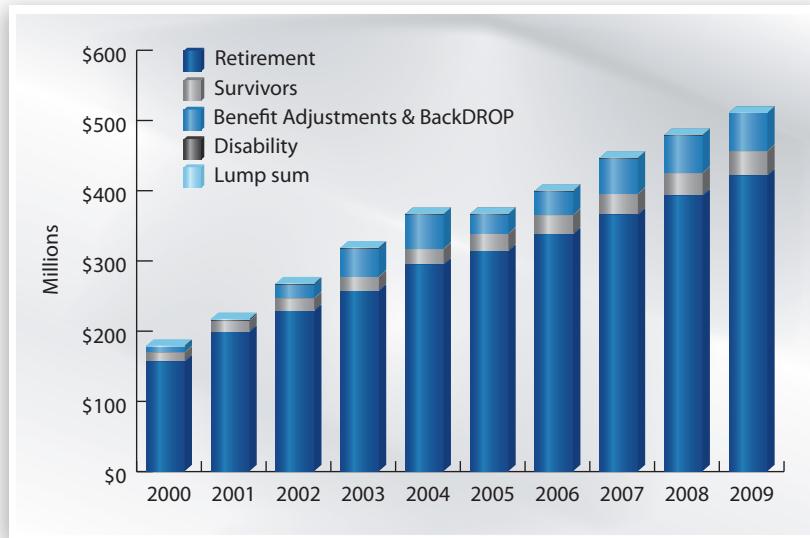
Missouri State Employees' Retirement System

	<b>FY00</b>	<b>FY01</b>	<b>FY02</b>	<b>FY03</b>	<b>FY04</b>
MSEP					
<b>Type of benefit</b>					
Retirement	\$157,184,011	\$199,479,082	\$229,333,190	\$257,883,204	\$295,200,937
Survivor	12,602,200	15,184,214	17,482,292	19,689,766	21,930,438
Disability	219,550	178,337	145,856	118,279	102,696
Lump sum	1,522,312	1,886,958	1,893,194	1,384,599	320,267
Benefit Adjustments & BackDROP	8,162,749	1,134,262	19,626,450	40,531,599	49,693,761
Total benefits	\$179,690,822	\$217,862,853	\$268,480,982	\$319,607,447	\$367,248,099
Refunds	\$ 889	\$ 0	\$ 0	\$ 4,019	\$ 8,585
ALJLAP*					
<b>Type of benefit</b>					
Retirement	\$ 627,865	\$ 629,094	\$ 680,391	\$ 808,124	\$ 840,963
Survivor	127,709	147,328	156,224	161,794	162,392
Total benefits	\$ 755,574	\$ 776,422	\$ 836,615	\$ 969,918	\$ 1,003,355
Judicial Plan					
<b>Type of benefit</b>					
Retirement	\$ 11,054,218	\$ 12,621,473	\$ 13,525,249	\$ 14,256,361	\$ 14,913,678
Survivor	2,192,748	2,340,625	2,379,860	2,613,650	2,744,591
Disability	45,222	48,000	38,533	0	0
Total benefits	\$ 13,292,188	\$ 15,010,098	\$ 15,943,642	\$ 16,870,011	\$ 17,658,269
	<b>FY05</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
MSEP					
<b>Type of benefit</b>					
Retirement	\$314,623,851	\$338,449,307	\$366,185,990	\$393,328,057	\$421,847,017
Survivor	24,251,854	26,944,984	29,340,464	31,894,702	34,615,979
Disability	82,246	62,324	42,273	36,825	33,812
Lump sum	342,720	459,398	556,568	454,643	272,189
Benefit Adjustments & BackDROP	28,130,626	34,253,550	51,115,476	54,139,664	54,697,557
Total benefits	\$367,431,297	\$400,169,563	\$447,240,771	\$479,853,891	\$511,466,554
Refunds	\$ 0	\$ 1,341	\$ 0	\$ 0	\$ 0
ALJLAP*					
<b>Type of benefit</b>					
Retirement	\$ 616,370	\$ 0	\$ 0	\$ 0	\$ 0
Survivor	132,827	0	0	0	0
Total benefits	\$ 749,197	\$ 0	\$ 0	\$ 0	\$ 0
Judicial Plan					
<b>Type of benefit</b>					
Retirement	\$ 15,513,182	\$ 15,989,341	\$ 17,135,426	\$ 18,342,676	\$ 19,143,753
Survivor	2,883,215	3,070,746	3,433,078	3,715,409	4,088,335
Disability	0	31,500	27,000	0	0
Total benefits	\$ 18,396,397	\$ 19,091,587	\$ 20,595,504	\$ 22,058,085	\$ 23,232,088

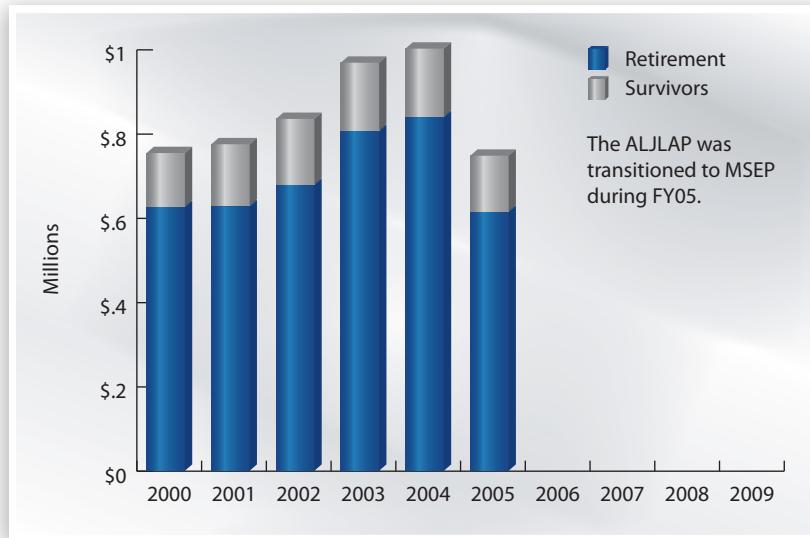
\*ALJLAP transitioned to the MSEP in FY05

## Deductions from Net Assets for Benefits and Refunds by Type Last Ten Fiscal Years

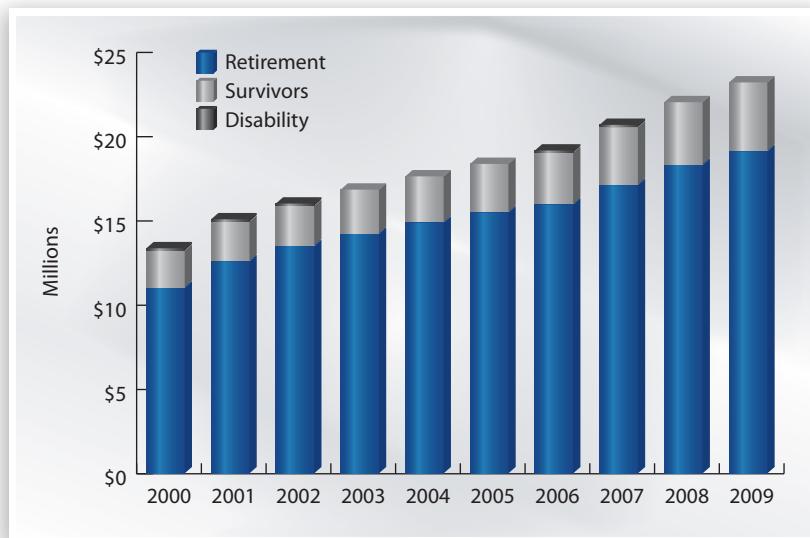
MSEP



ALJLAP



Judicial Plan

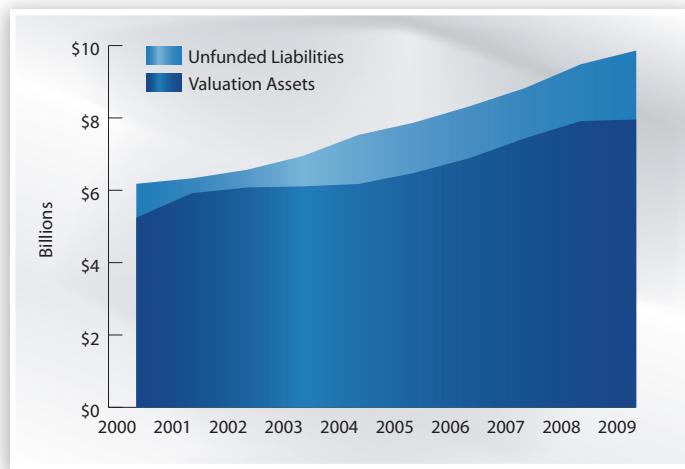


Pension Trust Funds - All Plans Combined  
**Valuation Assets vs. Pension Liabilities**  
Last Ten Fiscal Years

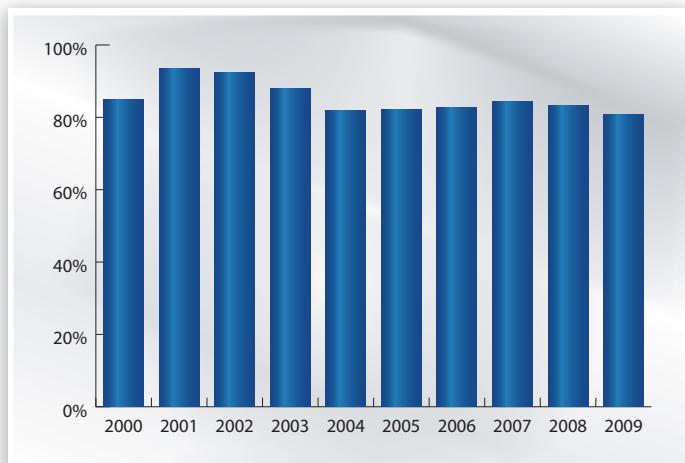
Valuation Assets (smoothed market) vs. Pension Liabilities

Fiscal Year	Dollars in Billions			
	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	Funded Ratios
2000	\$5.2433	\$0.9357	\$6.1790	84.9%
2001	5.9182	0.4118	6.3300	93.5
2002	6.0780	0.4906	6.5686	92.5
2003	6.1075	0.8417	6.9492	87.9
2004	6.1735	1.3573	7.5308	82.0
2005	6.4795	1.3908	7.8703	82.3
2006	6.8883	1.4339	8.3222	82.8
2007	7.4392	1.3879	8.8271	84.3
2008	7.9117	1.5714	9.4831	83.4
2009	7.9574	1.9065	9.8639	80.7

Actuarial Accrued Liabilities - All Plans Combined



Valuation Assets as Percents of Pension Liabilities - All Plans Combined



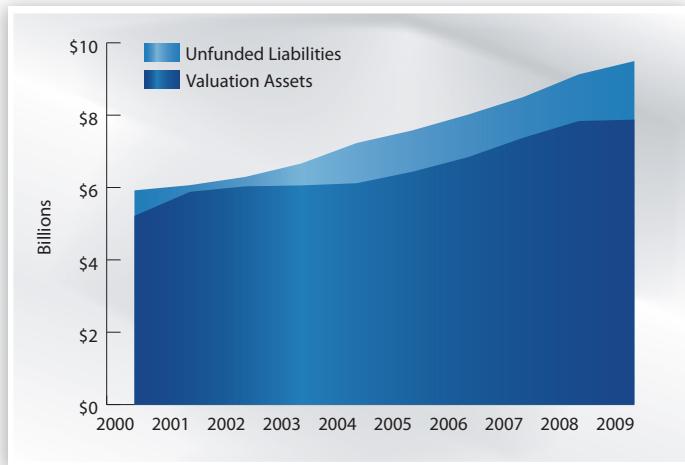
**Valuation Assets vs. Pension Liabilities**

Last Ten Fiscal Years

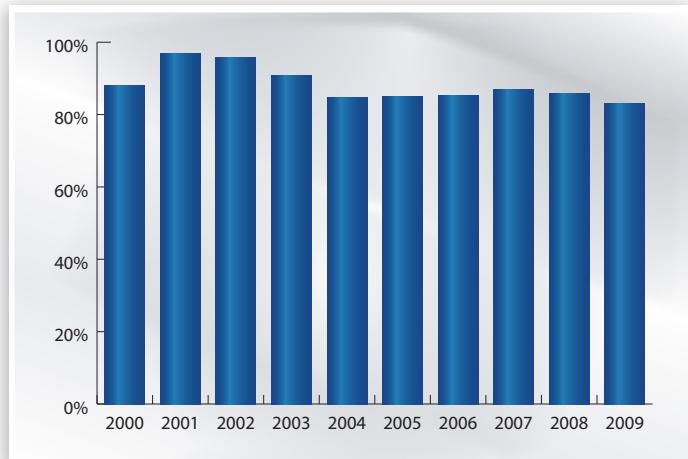
## Valuation Assets (smoothed market) vs. Pension Liabilities

Fiscal Year	Dollars in Billions			
	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	Funded Ratios
2000	\$5.2169	\$0.7038	\$5.9207	88.1%
2001	5.8812	0.1840	6.0652	97.0
2002	6.0331	0.2612	6.2943	95.9
2003	6.0573	0.6050	6.6623	90.9
2004	6.1182	1.1118	7.2300	84.6
2005	6.4353	1.1427	7.5780	84.9
2006	6.8366	1.1766	8.0132	85.3
2007	7.3773	1.1231	8.5004	86.8
2008	7.8385	1.2898	9.1283	85.9
2009	7.8761	1.6187	9.4948	83.0

Actuarial Accrued Liabilities - MSEP



Valuation Assets as Percents of Pension Liabilities - MSEP



## Pension Trust Funds - ALJLAP\*

### Valuation Assets vs. Pension Liabilities

Last Ten Fiscal Years

Valuation Assets (smoothed market) vs. Pension Liabilities

Fiscal Year	Dollars in Billions			
	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	Funded Ratios
2000	\$0.0129	\$0.0036	\$0.0165	78.2%
2001	0.0144	0.0024	0.0168	85.7
2002	0.0152	0.0030	0.0182	83.5
2003	0.0156	0.0043	0.0199	78.4
2004	0.0162	0.0042	0.0204	79.4

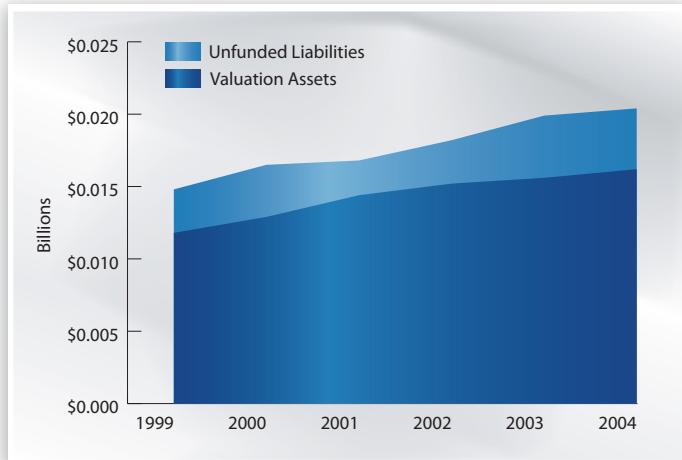
\*Assets and liabilities transferred to MSEP during FY05.

| Statistical Section

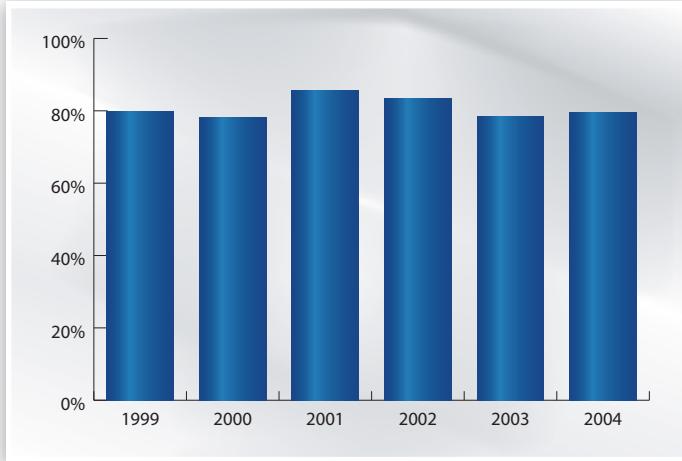
| Fiscal Year 2009

Missouri State Employees' Retirement System

Actuarial Accrued Liabilities - ALJLAP



Valuation Assets as Percents of Pension Liabilities - ALJLAP



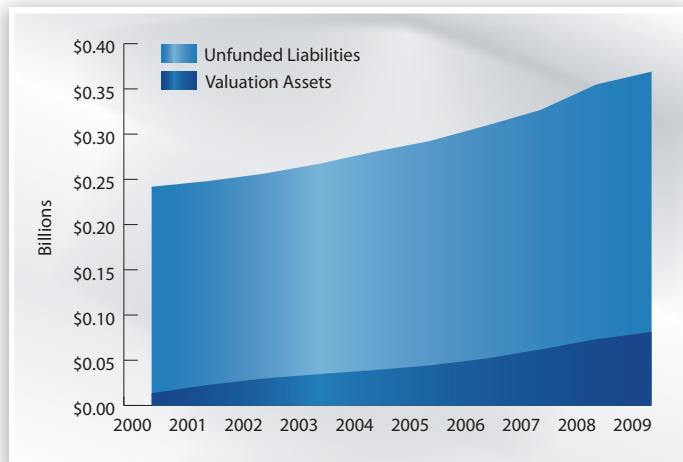
## Valuation Assets vs. Pension Liabilities

Last Ten Fiscal Years

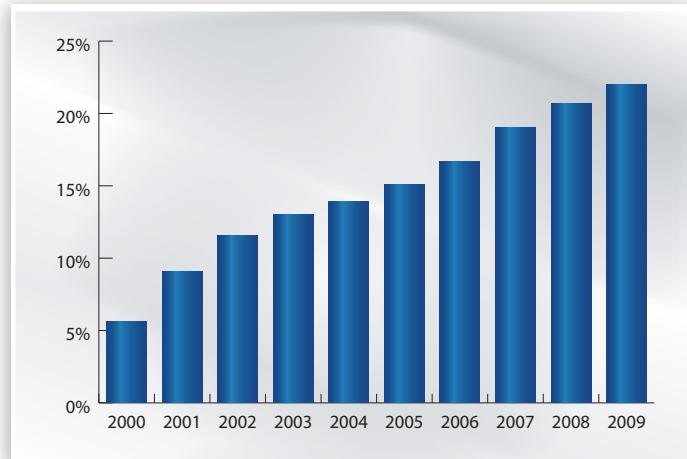
### Valuation Assets (smoothed market) vs. Pension Liabilities

Fiscal Year	Dollars in Billions			
	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	Funded Ratios
2000	\$0.0135	\$0.2283	\$0.2418	5.6%
2001	0.0226	0.2254	0.2480	9.1
2002	0.0297	0.2264	0.2561	11.6
2003	0.0346	0.2324	0.2670	13.0
2004	0.0391	0.2413	0.2804	13.9
2005	0.0442	0.2481	0.2923	15.1
2006	0.0517	0.2573	0.3090	16.7
2007	0.0619	0.2648	0.3267	19.0
2008	0.0732	0.2816	0.3548	20.7
2009	0.0813	0.2878	0.3691	22.0

Actuarial Accrued Liabilities - Judicial Plan



Valuation Assets as Percents of Pension Liabilities - Judicial Plan



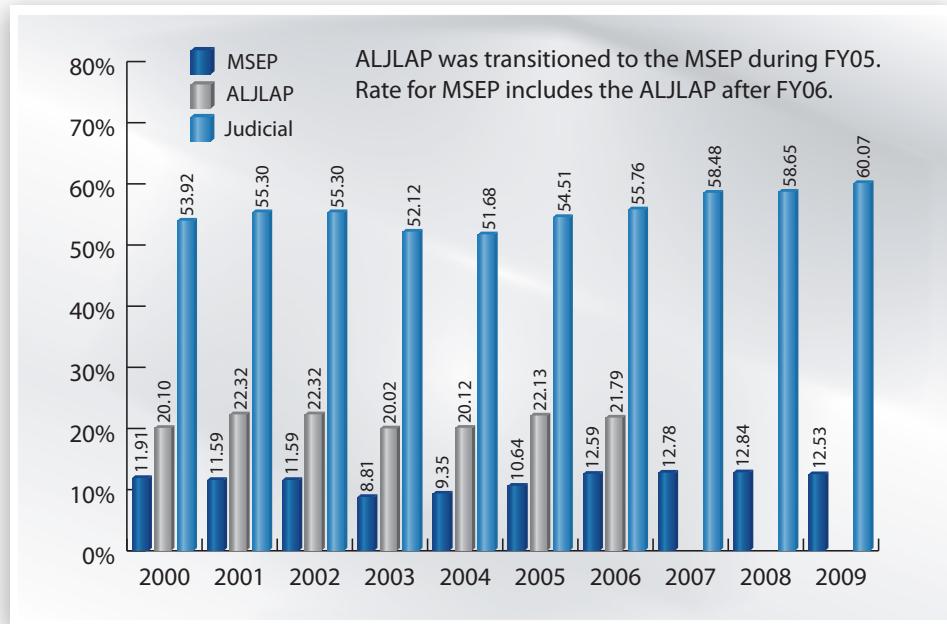
# Contribution Rates

Last Ten Fiscal Years

Fiscal Year	Percent of Payroll		
	MSEP	ALJLAP*	Judicial Plan
2000	11.91%	20.10%	53.92%
2001	11.59	22.32	55.30
2002	11.59	22.32	55.30
2003	8.81	20.02	52.12
2004	9.35	20.12	51.68
2005	10.64	22.13	54.51
2006	12.59	21.79	55.76
2007	12.78	0.00	58.48
2008	12.84	0.00	58.65
2009	12.53	0.00	60.07

\* ALJLAP included in MSEP beginning FY07.

## Contribution Rates

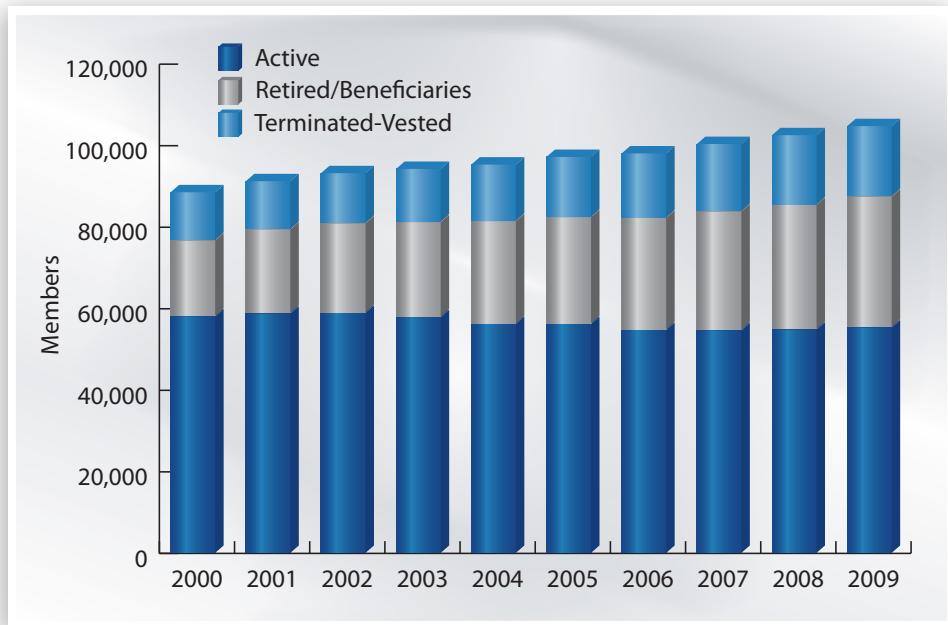


## Membership in Retirement Plans

Last Ten Fiscal Years

Fiscal Year	Active	Retired/ Beneficiaries	Terminated- Vested	Totals
2000	58,201	18,582	11,858	88,641
2001	58,869	20,642	11,837	91,348
2002	59,066	21,910	12,339	93,315
2003	58,007	23,292	13,073	94,372
2004	56,362	25,179	13,898	95,439
2005	56,336	26,177	14,789	97,302
2006	54,887	27,450	15,829	98,166
2007	54,763	29,129	16,578	100,470
2008	54,943	30,572	17,123	102,638
2009	55,454	32,100	17,304	104,858

Membership in Retirement Plans



# Benefit Recipients by Type of Retirement and Option Selected

June 30, 2009

MSEP

| Statistical Section  
Fiscal Year 2009

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Retirement						
		A	B	C	D	E	F	G
\$ 1-250	3,904	1,498	1,628	296	434	5	0	43
251-500	5,563	2,690	1,881	372	573	5	0	42
501-750	4,376	2,830	820	272	429	0	0	25
751-1,000	3,483	2,755	338	129	249	0	0	12
1,001-1,250	2,771	2,345	141	98	181	0	0	6
1,251-1,500	2,213	1,965	69	60	116	0	0	3
1,501-1,750	1,912	1,753	35	42	79	0	0	3
1,751-2,000	1,574	1,469	16	31	58	0	0	0
Over 2,000	6,177	5,854	35	79	208	0	0	1
Total	31,973	23,159	4,963	1,379	2,327	10	0	135

| Missouri State Employees' Retirement System

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Retirement						
		A	B	C	D	E	F	G
\$ 1-250	3	0	2	0	1	0	0	0
251-500	10	0	7	0	2	0	0	1
501-750	6	0	2	1	2	0	0	1
751-1,000	12	0	3	1	8	0	0	0
1,001-1,250	5	0	3	1	0	0	0	1
1,251-1,500	5	0	3	0	1	0	0	1
1,501-1,750	7	0	3	3	1	0	0	0
1,751-2,000	14	1	7	0	6	0	0	0
Over 2,000	404	257	33	31	82	0	0	1
Total	466	258	63	37	103	0	0	5

## Type of Retirement

- A Normal retirement
- B Early retirement
- C Survivor of active
- D Survivor of retired
- E Disability
- F Occupational disability (Water Patrol)
- G Ex-spouse

<b>Option Selected</b>									
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
0	22	124	104	200	1	767	597	42	2,047
8	40	138	71	210	5	1,106	1,100	22	2,863
8	32	89	36	168	4	913	1,096	10	2,020
6	22	50	30	212	2	696	858	2	1,605
10	12	48	17	232	2	539	606	0	1,305
17	13	30	19	221	0	454	412	1	1,046
11	7	26	9	256	1	346	330	1	925
8	3	17	12	237	0	341	187	0	769
65	20	74	26	889	3	1,639	888	1	2,572
133	171	596	324	2,625	18	6,801	6,074	79	15,152

<b>Option Selected</b>									
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
3	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	2
2	0	0	0	2	0	0	0	0	2
5	0	0	0	4	0	0	0	0	3
3	0	0	0	0	0	0	0	0	2
4	0	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0	5
9	0	0	0	3	0	0	0	0	2
362	0	0	0	31	0	0	0	0	11
398	0	0	0	40	0	0	0	0	28

**Option Selected**

- 1 Automatic 50% joint & survivor
- 2 60-month guaranteed
- 3 120-month guaranteed
- 4 180-month guaranteed
- 5 50% joint & survivor
- 6 75% joint & survivor
- 7 100% joint & survivor
- 8 Unreduced 50% joint & survivor
- 9 Automatic minor survivor
- 10 No survivor option (includes pop-ups)

# Distribution of Benefit Recipients by Location

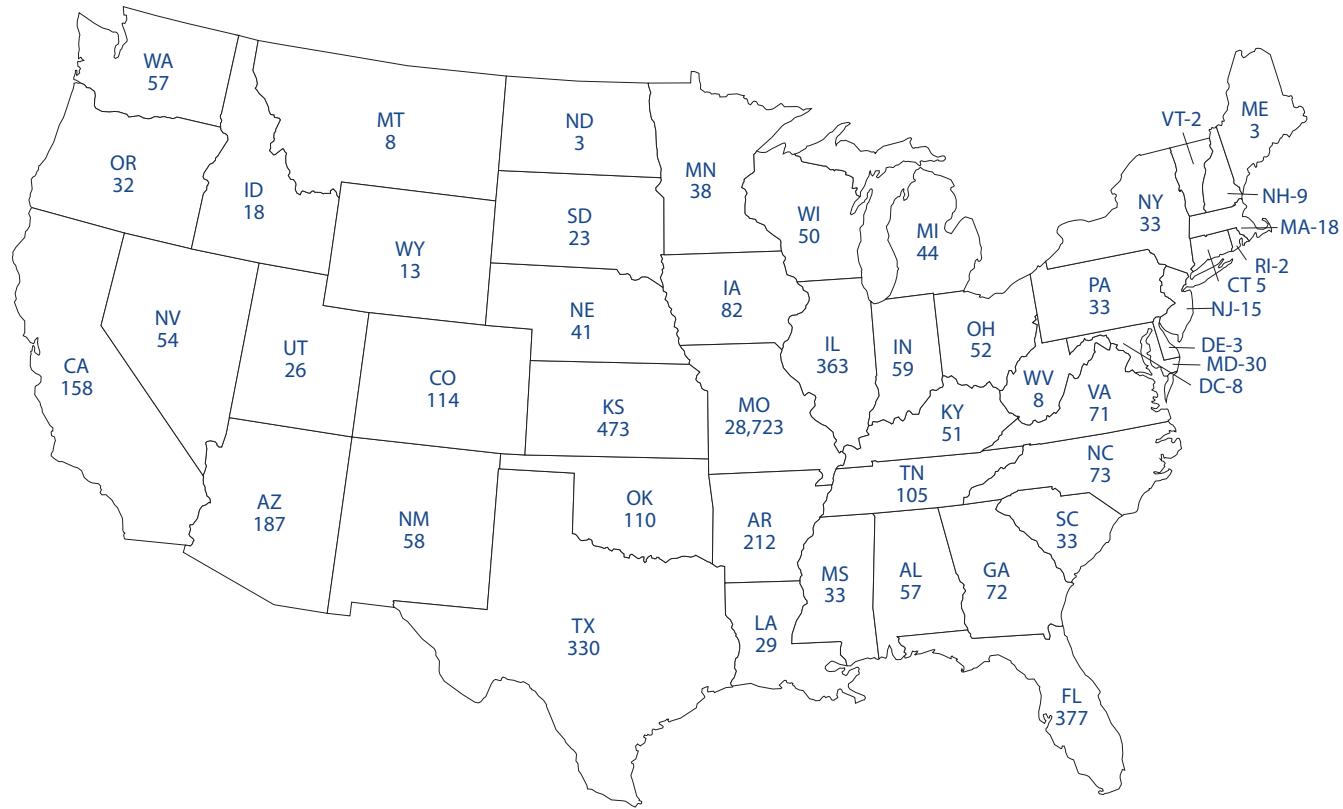
June 30, 2009

Missouri State Employees' Retirement System

Fiscal Year 2009

|

Statistical Section



## Benefit Recipients Outside the Continental United States

8 - Alaska	2 - Italy
4 - Hawaii	1 - Mexico
1 - APO	1 - P.R. China
1 - Australia	1 - Panama
1 - Belize	2 - Philippines
4 - Canada	1 - Sweden
1 - Colombia, South America	1 - Thailand
1 - Costa Rica	1 - The Netherlands
2 - Germany	1 - United Arab Emirates
1 - Guam	3 - United Kingdom
1 - Ireland	1 - Wales UK
1 - Israel	

## Benefits Payable June 30, 2009

Tabulated by Option and Type of Benefit

MSEP

Type of Benefit	Number	Annual Benefits	Average Annual Benefits
<b>Service retirement</b>			
Life annuity	4,834	\$ 54,603,248	\$11,296
50% joint and survivor	5,149	78,427,661	15,232
75% joint and survivor	3	49,478	16,493
100% joint and survivor	2,458	43,917,651	17,867
5-year certain and life	123	1,263,894	10,276
10-year certain and life	119	1,024,686	8,611
Survivor beneficiary	1,972	20,243,262	10,265
Total	14,658	199,529,880	13,612
<b>Disability retirement</b>			
	10	33,048	3,305
<b>Death-in-service</b>			
	1,341	12,248,723	9,134
Grand totals	16,009	<u>\$211,811,651</u>	13,231

MSEP 2000

Type of Benefit	Number	Annual Benefits	Average Annual Benefits
<b>Service retirement</b>			
Life annuity	9,897	\$149,139,478	\$15,069
50% joint and survivor	2,369	51,130,821	21,583
100% joint and survivor	2,270	42,055,020	18,526
5-year certain and life	42	610,916	14,546
10-year certain and life	397	4,839,767	12,191
15-year certain and life	277	2,455,906	8,866
Survivor beneficiary	336	3,200,578	9,526
Total	15,588	253,432,486	16,258
<b>Death-in-service</b>			
	40	114,167	2,854
Grand totals	15,628	<u>\$253,546,653</u>	16,224

Judicial Plan

Type of Benefit	Number	Annual Benefits	Average Annual Benefits
<b>Service retirement</b>			
Life annuity	6	\$ 337,932	\$56,322
50% joint and survivor	317	19,415,280	61,247
Survivor beneficiary	103	3,142,405	30,509
Total	426	22,895,617	53,746
<b>Death-in-service</b>			
	37	1,060,054	28,650
Grand totals	463	<u>\$23,955,671</u>	51,740

## Average Monthly Benefit Amounts

Ten Years Ended June 30, 2009

MSEP

### Years Credited Service by Category

Members Retiring During Fiscal Year	Years Credited Service by Category							All Members	
	<5	5-10	10-15	15-20	20-25	25-30	30+		
2000	Average monthly benefit	\$ 175	\$ 242	\$ 367	\$ 644	\$ 849	\$1,352	\$1,892	\$1,042
	Average final average salary	\$2,700	\$2,000	\$2,066	\$2,332	\$2,338	\$2,884	\$3,294	\$2,611
	Number of retirees	7	112	167	156	177	237	272	1,128
2001	Average monthly benefit	\$ 255	\$ 255	\$ 430	\$ 683	\$ 972	\$1,389	\$1,753	\$1,091
	Average final average salary	\$2,577	\$2,085	\$2,119	\$2,461	\$2,526	\$2,913	\$3,077	\$2,649
	Number of retirees	10	352	312	199	246	463	727	2,309
2002	Average monthly benefit	\$ 100	\$ 260	\$ 429	\$ 653	\$1,002	\$1,451	\$1,894	\$ 982
	Average final average salary	\$1,385	\$2,247	\$2,198	\$2,433	\$2,617	\$3,056	\$3,339	\$2,671
	Number of retirees	5	234	276	232	252	362	249	1,610
2003	Average monthly benefit	\$ 111	\$ 282	\$ 505	\$ 768	\$1,055	\$1,453	\$1,808	\$1,056
	Average final average salary	\$1,533	\$2,193	\$2,435	\$2,627	\$2,722	\$3,059	\$3,266	\$2,770
	Number of retirees	5	207	248	235	293	446	257	1,691
2004	Average monthly benefit	\$ 125	\$ 281	\$ 425	\$ 688	\$1,035	\$1,445	\$1,650	\$1,004
	Average final average salary	\$1,837	\$2,392	\$2,268	\$2,560	\$2,698	\$3,043	\$3,033	\$2,720
	Number of retirees	6	304	303	321	392	598	350	2,274
2005	Average monthly benefit	\$ 281	\$ 287	\$ 465	\$ 683	\$1,182	\$1,562	\$1,942	\$ 938
	Average final average salary	\$4,085	\$2,381	\$2,270	\$2,572	\$3,067	\$3,338	\$3,470	\$2,805
	Number of retirees	4	314	267	280	269	336	129	1,599
2006	Average monthly benefit	\$ 426	\$ 283	\$ 439	\$ 701	\$1,038	\$1,570	\$1,865	\$ 912
	Average final average salary	\$3,520	\$2,419	\$2,343	\$2,700	\$2,750	\$3,325	\$3,463	\$2,789
	Number of retirees	3	349	303	286	293	355	161	1,750
2007	Average monthly benefit	\$ 150	\$ 273	\$ 481	\$ 692	\$1,117	\$1,560	\$1,867	\$ 945
	Average final average salary	\$2,613	\$2,333	\$2,495	\$2,647	\$2,951	\$3,309	\$3,424	\$2,827
	Number of retirees	1	434	322	339	350	445	210	2,101
2008	Average monthly benefit	\$ 0	\$ 265	\$ 462	\$ 723	\$1,091	\$1,582	\$2,029	\$ 923
	Average final average salary	\$ 0	\$2,369	\$2,426	\$2,766	\$2,908	\$3,354	\$3,666	\$2,837
	Number of retirees	0	413	404	336	366	378	194	2,091
2009	Average monthly benefit	\$ 111	\$ 292	\$ 489	\$ 748	\$1,226	\$1,637	\$2,191	\$ 976
	Average final average salary	\$1,596	\$2,435	\$2,463	\$2,855	\$3,212	\$3,462	\$3,993	\$2,966
	Number of retirees	1	461	391	322	416	388	180	2,159

Ten Years Ended June 30, 2009

Average monthly benefit	\$ 196	\$ 275	\$ 454	\$ 702	\$1,074	\$1,500	\$1,845	\$ 987
Average final average salary	\$2,414	\$2,318	\$2,328	\$2,622	\$2,821	\$3,171	\$3,305	\$2,772
Number of retirees	42	3,180	2,993	2,706	3,054	4,008	2,729	18,712

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

## Average Monthly Benefit Amounts

Ten Years Ended June 30, 2009

General Employees in the MSEP

Members Retiring During Fiscal Year	Years Credited Service by Category							All Members	
	<5	5-10	10-15	15-20	20-25	25-30	30+		
2000	Average monthly benefit	\$ 175	\$ 223	\$ 360	\$ 637	\$ 849	\$1,352	\$1,887	\$1,040
	Average final average salary	\$2,700	\$1,963	\$2,060	\$2,328	\$2,338	\$2,884	\$3,291	\$2,607
	Number of retirees	7	108	166	155	177	237	271	1,121
2001	Average monthly benefit	\$ 98	\$ 239	\$ 392	\$ 639	\$ 964	\$1,382	\$1,751	\$1,080
	Average final average salary	\$1,624	\$2,055	\$2,042	\$2,407	\$2,512	\$2,913	\$3,075	\$2,626
	Number of retirees	9	347	307	194	245	460	726	2,288
2002	Average monthly benefit	\$ 100	\$ 257	\$ 418	\$ 641	\$ 991	\$1,447	\$1,888	\$ 975
	Average final average salary	\$1,385	\$2,244	\$2,189	\$2,428	\$2,598	\$3,056	\$3,340	\$2,666
	Number of retirees	5	233	273	230	251	361	247	1,600
2003	Average monthly benefit	\$ 111	\$ 245	\$ 471	\$ 672	\$1,030	\$1,449	\$1,805	\$1,038
	Average final average salary	\$1,533	\$2,152	\$2,414	\$2,548	\$2,717	\$3,059	\$3,269	\$2,757
	Number of retirees	5	197	239	220	288	445	256	1,650
2004	Average monthly benefit	\$ 125	\$ 271	\$ 425	\$ 676	\$1,035	\$1,445	\$1,650	\$1,003
	Average final average salary	\$1,837	\$2,380	\$2,268	\$2,556	\$2,698	\$3,042	\$3,033	\$2,719
	Number of retirees	6	298	303	318	392	597	350	2,264
2005	Average monthly benefit	\$ 229	\$ 263	\$ 410	\$ 673	\$1,136	\$1,562	\$1,895	\$ 915
	Average final average salary	\$4,449	\$2,357	\$2,179	\$2,566	\$3,023	\$3,338	\$3,491	\$2,781
	Number of retirees	3	302	260	277	262	336	125	1,565
2006	Average monthly benefit	\$ 95	\$ 268	\$ 428	\$ 701	\$1,038	\$1,556	\$1,848	\$ 903
	Average final average salary	\$1,362	\$2,385	\$2,337	\$2,700	\$2,750	\$3,302	\$3,435	\$2,771
	Number of retirees	2	344	300	286	293	352	159	1,736
2007	Average monthly benefit	\$ 0	\$ 257	\$ 476	\$ 685	\$1,117	\$1,560	\$1,859	\$ 943
	Average final average salary	\$ 0	\$2,314	\$2,492	\$2,645	\$2,951	\$3,309	\$3,426	\$2,826
	Number of retirees	0	422	320	337	350	445	209	2,083
2008	Average monthly benefit	\$ 0	\$ 260	\$ 449	\$ 713	\$1,091	\$1,582	\$2,029	\$ 920
	Average final average salary	\$ 0	\$2,363	\$2,415	\$2,751	\$2,908	\$3,354	\$3,666	\$2,833
	Number of retirees	0	409	399	335	366	378	194	2,081
2009	Average monthly benefit	\$ 111	\$ 267	\$ 470	\$ 740	\$1,209	\$1,635	\$2,175	\$ 965
	Average final average salary	\$1,596	\$2,404	\$2,440	\$2,854	\$3,187	\$3,460	\$3,971	\$2,952
	Number of retirees	1	447	387	320	413	387	179	2,134

Ten Years Ended June 30, 2009

Average monthly benefit	\$ 129	\$ 258	\$ 435	\$ 684	\$1,063	\$1,497	\$1,838	\$ 978
Average final average salary	\$2,021	\$2,295	\$2,303	\$2,608	\$2,810	\$3,168	\$3,302	\$2,761
Number of retirees	38	3,107	2,954	2,672	3,037	3,998	2,716	18,522

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

# Average Monthly Benefit Amounts

Ten Years Ended June 30, 2009

Uniformed Members of the Water Patrol in the MSEP

## Years Credited Service by Category

Members Retiring During Fiscal Year	Years Credited Service by Category							All Members
	<5	5-10	10-15	15-20	20-25	25-30	30+	
2000	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$3,297 \$3,297
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$4,014 \$4,014
	Number of retirees	0	0	0	0	0	0	1 1
2001	Average monthly benefit	\$ 0	\$ 0	\$1,664	\$ 0	\$ 0	\$1,923	\$3,236 \$2,274
	Average final average salary	\$ 0	\$ 0	\$5,833	\$ 0	\$ 0	\$3,172	\$4,274 \$4,426
	Number of retirees	0	0	1	0	0	1	1 3
2002	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$1,843 \$1,843
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$3,432 \$3,432
	Number of retirees	0	0	0	0	0	0	1 1
2003	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0 \$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0 \$ 0
	Number of retirees	0	0	0	0	0	0	0 0
2004	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$1,743	\$ 0 \$1,743
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$3,628	\$ 0 \$3,628
	Number of retirees	0	0	0	0	0	1	0 1
2005	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$1,267	\$ 0	\$ 0	\$ 0 \$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$3,254	\$ 0	\$ 0	\$ 0 \$ 0
	Number of retirees	0	0	0	1	0	0	0 1
2006	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$2,848	\$3,090 \$2,969
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$4,657	\$4,710 \$4,684
	Number of retirees	0	0	0	0	0	1	1 2
2007	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0 \$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0 \$ 0
	Number of retirees	0	0	0	0	0	0	0 0
2008	Average monthly benefit	\$ 0	\$ 0	\$ 750	\$ 0	\$ 0	\$ 0	\$ 0 \$ 0
	Average final average salary	\$ 0	\$ 0	\$2,541	\$ 0	\$ 0	\$ 0	\$ 0 \$2,541
	Number of retirees	0	0	1	0	0	0	0 1
2009	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$2,351	\$5,113 \$3,732
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$4,173	\$7,902 \$6,038
	Number of retirees	0	0	0	0	0	1	1 2

Ten Years Ended June 30, 2009

Average monthly benefit	\$ 0	\$ 0	\$1,207	\$1,267	\$ 0	\$2,216	\$3,316	\$2,427
Average final average salary	\$ 0	\$ 0	\$4,187	\$3,254	\$ 0	\$3,908	\$4,866	\$4,299
Number of retirees	0	0	2	1	0	4	5	12

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

## Average Monthly Benefit Amounts

Ten Years Ended June 30, 2009

Legislators in the MSEP

### Years Credited Service by Category

Members Retiring During Fiscal Year	Years Credited Service by Category							All Members
	<5	5-10	10-15	15-20	20-25	25-30	30+	
2000	Average monthly benefit	\$ 0	\$ 759	\$1,519	\$1,736	\$ 0	\$ 0	\$ 0 \$1,049
	Average final average salary	\$ 0	\$2,993	\$2,993	\$2,993	\$ 0	\$ 0	\$ 0 \$2,993
	Number of retirees	0	4	1	1	0	0	0 6
2001	Average monthly benefit	\$ 0	\$ 925	\$1,302	\$1,750	\$ 0	\$2,649	\$ 0 \$1,550
	Average final average salary	\$ 0	\$2,993	\$2,993	\$2,893	\$ 0	\$2,794	\$ 0 \$2,927
	Number of retirees	0	4	2	4	0	2	0 12
2002	Average monthly benefit	\$ 0	\$ 871	\$1,451	\$2,068	\$ 0	\$2,830	\$3,365 \$1,944
	Average final average salary	\$ 0	\$2,993	\$2,993	\$2,993	\$ 0	\$2,993	\$2,993 \$2,993
	Number of retirees	0	1	3	2	0	1	1 8
2003	Average monthly benefit	\$ 0	\$1,002	\$1,403	\$1,816	\$2,482	\$3,048	\$2,700 \$1,647
	Average final average salary	\$ 0	\$2,993	\$2,993	\$2,930	\$2,993	\$2,993	\$2,613 \$2,963
	Number of retirees	0	10	9	12	5	1	1 38
2004	Average monthly benefit	\$ 0	\$ 797	\$ 0	\$1,959	\$ 0	\$ 0	\$ 0 \$1,184
	Average final average salary	\$ 0	\$2,993	\$ 0	\$2,993	\$ 0	\$ 0	\$ 0 \$2,993
	Number of retirees	0	6	0	3	0	0	0 9
2005	Average monthly benefit	\$ 435	\$ 889	\$1,361	\$1,742	\$2,409	\$ 0	\$3,411 \$1,604
	Average final average salary	\$2,993	\$2,993	\$2,993	\$2,993	\$2,898	\$ 0	\$2,803 \$2,951
	Number of retirees	1	12	4	2	4	0	4 27
2006	Average monthly benefit	\$ 0	\$ 943	\$1,524	\$ 0	\$ 0	\$ 0	\$ 0 \$1,234
	Average final average salary	\$ 0	\$2,993	\$2,993	\$ 0	\$ 0	\$ 0	\$ 0 \$2,993
	Number of retirees	0	3	3	0	0	0	0 6
2007	Average monthly benefit	\$ 150	\$ 852	\$1,306	\$1,855	\$ 0	\$ 0	\$3,484 \$1,121
	Average final average salary	\$2,613	\$2,993	\$2,993	\$2,993	\$ 0	\$ 0	\$2,993 \$2,972
	Number of retirees	1	12	2	2	0	0	1 18
2008	Average monthly benefit	\$ 0	\$ 816	\$1,306	\$ 0	\$ 0	\$ 0	\$ 0 \$ 979
	Average final average salary	\$ 0	\$2,993	\$2,993	\$ 0	\$ 0	\$ 0	\$ 0 \$2,993
	Number of retirees	0	4	2	0	0	0	0 6
2009	Average monthly benefit	\$ 0	\$ 910	\$1,496	\$2,057	\$2,395	\$ 0	\$ 0 \$1,201
	Average final average salary	\$ 0	\$2,993	\$2,993	\$2,993	\$2,993	\$ 0	\$ 0 \$2,993
	Number of retirees	0	13	3	2	1	0	0 19

Ten Years Ended June 30, 2009

Average monthly benefit	\$ 293	\$ 887	\$1,408	\$1,852	\$2,444	\$2,794	\$3,313	\$1,431
Average final average salary	\$2,803	\$2,993	\$2,993	\$2,952	\$2,955	\$2,894	\$2,830	\$2,970
Number of retirees	2	69	29	28	10	4	7	149

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

## Average Monthly Benefit Amounts

Ten Years Ended June 30, 2009

Elected Officials in the MSEP

### Years Credited Service by Category

| Statistical Section

| Fiscal Year 2009

| Missouri State Employees' Retirement System

Members Retiring During Fiscal Year	Years Credited Service by Category							All Members
	<5	5-10	10-15	15-20	20-25	25-30	30+	
2000	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0
2001	Average monthly benefit	\$ 1,668	\$ 3,154	\$ 4,789	\$ 5,004	\$ 0	\$ 0	\$ 0
	Average final average salary	\$11,152	\$8,979	\$11,152	\$11,152	\$ 0	\$ 0	\$ 0
	Number of retirees	1	1	2	1	0	0	5
2002	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0
2003	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0
2004	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0
2005	Average monthly benefit	\$ 0	\$ 0	\$ 4,218	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$10,065	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	2	0	0	0	2
2006	Average monthly benefit	\$ 0	\$ 2,009	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$8,979	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	1	0	0	0	0	1
2007	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0
2008	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0
2009	Average monthly benefit	\$ 0	\$3,336	\$ 4,852	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$8,979	\$ 9,703	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	1	1	0	0	0	2

Ten Years Ended June 30, 2009

Average monthly benefit	\$ 1,668	\$2,833	\$ 4,573	\$ 5,004	\$ 0	\$ 0	\$ 0	\$ 0	\$ 3,804
Average final average salary	\$11,152	\$8,979	\$10,427	\$11,152	\$ 0	\$ 0	\$ 0	\$ 0	\$10,138
Number of retirees	1	3	5	1	0	0	0	0	10

Note: COLA increases are excluded from the above for comparison purposes.

## Average Monthly Benefit Amounts

Ten Years Ended June 30, 2009

Administrative Law Judges and Legal Advisors in the MSEP

Members Retiring During Fiscal Year	Years Credited Service by Category							All Members
	<5	5-10	10-15	15-20	20-25	25-30	30+	
2000	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0
2001	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,982	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 5,965	\$ 0	\$ 0
	Number of retirees	0	0	0	0	1	0	1
2002	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 3,739	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 7,478	\$ 0	\$ 0
	Number of retirees	0	0	0	0	1	0	1
2003	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 3,615	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 7,231	\$ 0	\$ 0
	Number of retirees	0	0	0	3	0	0	3
2004	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0
2005	Average monthly benefit	\$ 0	\$ 0	\$ 3,750	\$ 0	\$ 3,584	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 7,500	\$ 0	\$ 7,169	\$ 0	\$ 0
	Number of retirees	0	0	1	0	3	0	4
2006	Average monthly benefit	\$1,088	\$1,669	\$ 0	\$ 0	\$ 0	\$ 3,333	\$ 3,333
	Average final average salary	\$7,836	\$5,933	\$ 0	\$ 0	\$ 0	\$ 6,667	\$ 6,667
	Number of retirees	1	1	0	0	0	2	1
2007	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0
2008	Average monthly benefit	\$ 0	\$ 0	\$ 2,040	\$ 3,968	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 4,081	\$ 7,936	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	2	1	0	0	3
2009	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,200	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 8,400	\$ 0	\$ 0
	Number of retirees	0	0	0	0	2	0	2

Ten Years Ended June 30, 2009

Average monthly benefit	\$1,088	\$1,669	\$2,610	\$3,703	\$3,696	\$3,333	\$3,333	\$3,225
Average final average salary	\$7,836	\$5,933	\$5,221	\$7,407	\$7,393	\$6,667	\$6,667	\$6,885
Number of retirees	1	1	3	4	7	2	1	19

Note: COLA increases are excluded from the above for comparison purposes.

# Average Monthly Benefit Amounts

Ten Years Ended June 30, 2009

## Judicial Plan

### Years Credited Service by Category

Members Retiring During Fiscal Year	Years Credited Service by Category							All Members
	<5	5-10	10-15	15-20	20-25	25-30	30+	
2000	Average monthly benefit	\$ 0	\$1,282	\$3,368	\$4,030	\$ 3,991	\$ 4,139	\$ 4,375 \$3,725
	Average final average salary	\$ 0	\$5,129	\$6,735	\$8,059	\$ 7,982	\$ 8,278	\$ 8,750 \$7,610
	Number of retirees	0	1	4	3	4	3	1 16
2001	Average monthly benefit	\$ 0	\$2,378	\$4,145	\$3,849	\$ 4,500	\$ 4,573	\$ 4,250 \$4,215
	Average final average salary	\$ 0	\$8,000	\$8,399	\$7,698	\$ 9,000	\$ 9,146	\$ 8,500 \$8,614
	Number of retirees	0	1	4	3	6	4	2 20
2002	Average monthly benefit	\$ 0	\$1,337	\$3,606	\$4,093	\$ 4,000	\$ 4,576	\$ 0 \$3,877
	Average final average salary	\$ 0	\$6,095	\$7,405	\$8,186	\$ 8,000	\$ 9,153	\$ 0 \$8,101
	Number of retirees	0	1	2	4	1	3	0 11
2003	Average monthly benefit	\$ 756	\$1,946	\$4,042	\$3,849	\$ 4,000	\$ 4,500	\$ 4,250 \$3,379
	Average final average salary	\$8,000	\$6,317	\$8,333	\$7,697	\$ 8,000	\$ 9,000	\$ 8,500 \$7,807
	Number of retirees	2	3	3	6	3	1	2 20
2004	Average monthly benefit	\$ 855	\$3,028	\$4,500	\$4,061	\$ 4,597	\$ 0	\$ 4,500 \$3,952
	Average final average salary	\$5,129	\$8,000	\$9,000	\$8,121	\$ 9,194	\$ 0	\$ 9,000 \$8,350
	Number of retirees	1	1	2	4	3	0	1 12
2005	Average monthly benefit	\$ 0	\$ 0	\$3,935	\$4,500	\$ 4,142	\$ 4,300	\$ 4,396 \$4,216
	Average final average salary	\$ 0	\$ 0	\$8,423	\$9,000	\$ 8,284	\$ 8,600	\$ 8,792 \$8,550
	Number of retirees	0	0	3	1	3	5	2 14
2006	Average monthly benefit	\$ 592	\$1,946	\$4,500	\$4,000	\$ 0	\$ 4,396	\$ 0 \$2,930
	Average final average salary	\$5,875	\$6,564	\$9,000	\$8,000	\$ 0	\$ 8,792	\$ 0 \$7,496
	Number of retirees	2	2	1	2	0	2	0 9
2007	Average monthly benefit	\$ 207	\$2,121	\$3,995	\$4,260	\$ 4,357	\$ 4,071	\$ 4,250 \$3,798
	Average final average salary	\$5,875	\$7,889	\$7,990	\$8,521	\$ 8,714	\$ 8,143	\$ 8,500 \$8,244
	Number of retirees	2	5	5	15	7	7	4 45
2008	Average monthly benefit	\$ 592	\$2,045	\$4,120	\$4,828	\$ 5,132	\$ 4,593	\$ 5,186 \$3,908
	Average final average salary	\$5,821	\$6,203	\$8,276	\$9,656	\$10,264	\$ 9,186	\$10,373 \$8,537
	Number of retirees	2	2	6	3	3	2	1 19
2009	Average monthly benefit	\$ 494	\$1,786	\$3,663	\$4,528	\$ 5,286	\$ 5,127	\$ 5,020 \$3,559
	Average final average salary	\$5,775	\$7,469	\$7,811	\$9,012	\$10,572	\$10,255	\$10,040 \$8,361
	Number of retirees	5	2	7	7	3	3	1 28

Ten Years Ended June 30, 2009

Average monthly benefit	\$ 544	\$2,001	\$3,920	\$4,207	\$ 4,453	\$ 4,410	\$ 4,420	\$3,772
Average final average salary	\$6,082	\$7,005	\$8,024	\$8,407	\$ 8,905	\$ 8,820	\$ 8,839	\$8,216
Number of retirees	14	18	37	48	33	30	14	194

Note: COLA increases are excluded from the above for comparison purposes.

Statistical Section

Fiscal Year 2009

Missouri State Employees' Retirement System

# Retirees and Beneficiaries

## Tabulated by Fiscal Year of Retirement

### MSEP

Fiscal Year of Retirement	Number	Total Annual Benefit	Average Monthly Benefit
1971 & prior	2	\$ 14,473	\$603
1972	4	18,619	388
1973	9	57,844	536
1974	11	75,878	575
1975	21	144,444	573
1976	37	238,415	537
1977	51	359,120	587
1978	68	435,315	533
1979	53	430,659	677
1980	61	513,195	701
1981	100	866,661	722
1982	138	1,282,236	774
1983	160	1,624,430	846
1984	190	1,633,431	716
1985	208	2,186,620	876
1986	269	2,258,678	700
1987	320	3,199,310	833
1988	389	4,768,016	1,021
1989	434	5,754,969	1,105
1990	439	5,639,903	1,071
1991	573	8,738,272	1,271
1992	612	8,744,725	1,191
1993	708	9,989,355	1,176
1994	698	9,905,199	1,183
1995	929	14,074,117	1,262
1996	927	14,264,827	1,282
1997	945	14,754,590	1,301
1998	1,125	17,311,113	1,282
1999	1,225	19,235,736	1,309
2000	1,305	21,108,321	1,348
2001	2,517	42,203,099	1,397
2002	1,849	27,519,093	1,240
2003	1,922	30,692,844	1,331
2004	2,505	40,105,224	1,334
2005	1,859	26,347,628	1,181
2006	2,025	28,382,257	1,168
2007	2,397	34,584,193	1,202
2008	2,406	33,240,383	1,151
2009	2,482	35,532,905	1,193
	<u>31,973</u>	<u>\$468,236,097</u>	<u>1,220</u>

### Judicial Plan

Fiscal Year of Retirement	Number	Total Annual Benefit	Average Monthly Benefit
1976 & prior	2	\$ 16,965	\$ 707
1978	1	14,282	1,190
1979	1	37,118	3,093
1980	1	19,475	1,623
1981	2	121,477	5,062
1982	1	11,253	938
1983	2	88,103	3,671
1984	1	20,332	1,694
1985	3	151,479	4,208
1986	6	207,774	2,886
1987	17	776,115	3,804
1988	8	400,991	4,177
1989	9	484,994	4,491
1990	6	307,403	4,269
1991	19	1,021,033	4,478
1992	9	454,746	4,211
1993	14	633,977	3,774
1994	8	331,260	3,451
1995	20	1,269,144	5,288
1996	11	519,036	3,932
1997	6	314,616	4,370
1998	25	1,488,256	4,961
1999	23	1,246,186	4,515
2000	26	1,461,988	4,686
2001	21	1,563,736	6,205
2002	15	862,790	4,793
2003	25	1,286,996	4,290
2004	18	1,013,112	4,690
2005	20	1,095,101	4,563
2006	18	660,674	3,059
2007	61	2,930,793	4,004
2008	32	1,435,775	3,739
2009	35	1,573,823	3,747
	<u>466</u>	<u>\$23,820,803</u>	<u>4,260</u>

# Total Benefits Payable

Tabulated by Attained Ages of Benefit Recipients  
As of June 30, 2009

MSEP

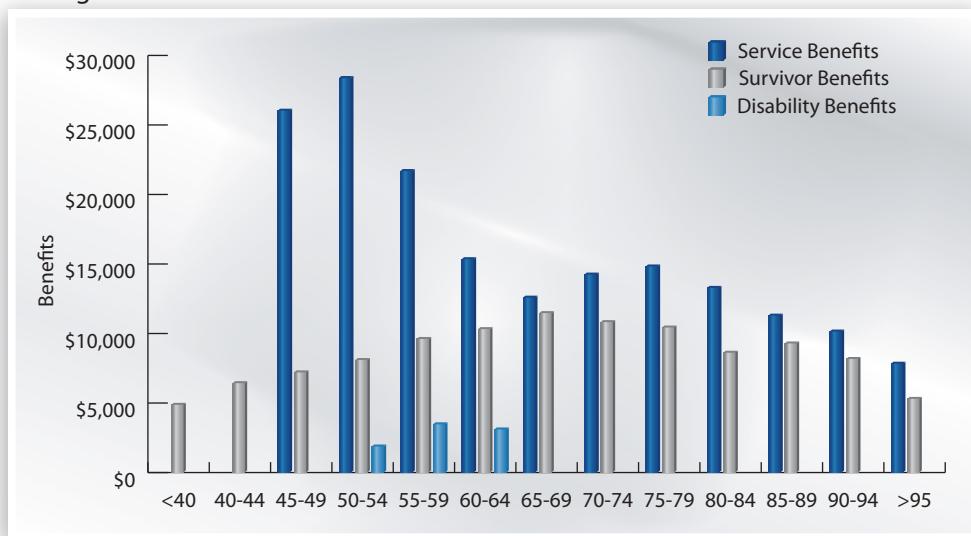
Missouri State Employees' Retirement System | Statistical Section

Fiscal Year 2009

Attained Ages	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Totals	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20	0	\$ 0	0	\$ 0	71	\$ 262,858	71	\$ 262,858
20-24	0	0	0	0	25	149,107	25	149,107
25-29	0	0	0	0	5	30,310	5	30,310
30-34	0	0	0	0	24	188,455	24	188,455
35-39	0	0	0	0	39	191,431	39	191,431
40-44	0	0	0	0	71	466,636	71	466,636
45-49	8	209,352	0	0	100	734,684	108	944,036
50-54	636	18,137,352	1	2,016	193	1,589,354	830	19,728,722
55-59	3,703	80,832,725	5	18,060	322	3,139,702	4,030	83,990,487
60-64	6,378	98,798,035	4	12,972	389	4,068,223	6,771	102,879,230
65-69	5,931	75,457,792	0	0	426	4,945,671	6,357	80,403,463
70-74	4,270	61,411,186	0	0	529	5,798,669	4,799	67,209,855
75-79	3,121	46,706,009	0	0	577	6,100,574	3,698	52,806,583
80-84	2,194	29,454,489	0	0	521	4,563,794	2,715	34,018,283
85-89	1,139	13,017,083	0	0	285	2,686,644	1,424	15,703,727
90-94	452	4,649,320	0	0	98	814,453	550	5,463,773
95	36	314,990	0	0	5	15,984	41	330,974
96	24	219,890	0	0	4	46,764	28	266,654
97	24	140,448	0	0	2	5,568	26	146,016
98	9	75,391	0	0	1	2,964	10	78,355
99	4	38,400	0	0	1	2,352	5	40,752
100	5	28,992	0	0	0	0	5	28,992
101	3	18,336	0	0	1	2,533	4	20,869
102	1	8,736	0	0	0	0	1	8,736
Totals	27,938	\$429,518,526	10	\$33,048	3,689	\$35,806,730	31,637	\$465,358,304

Average age at retirement                    60.3 years  
Average age now                              69.1 years

Average Annual Benefits - MSEP



# Total Benefits Payable

Tabulated by Attained Ages of Benefit Recipients

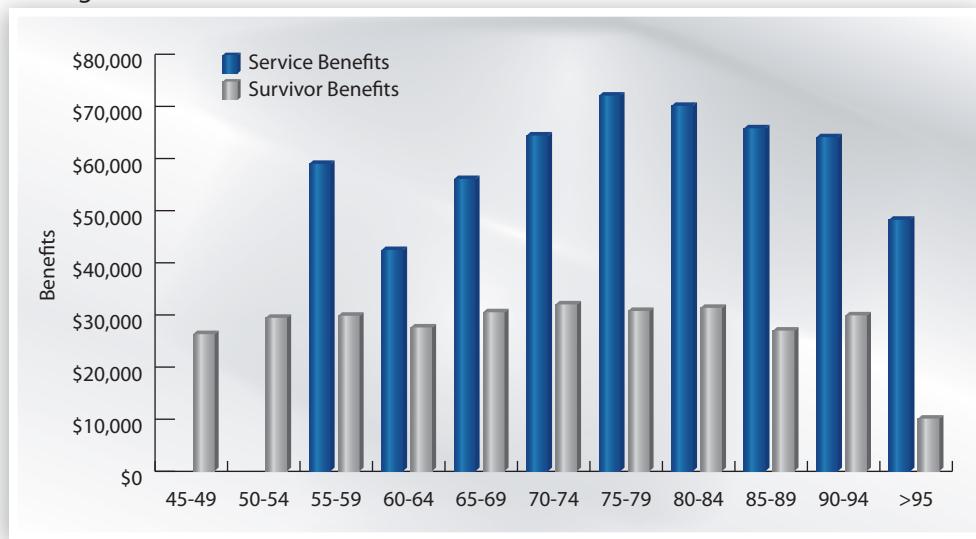
As of June 30, 2009

Judicial Plan

Attained Ages	Service Retirement		Survivors and Beneficiaries		Totals	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
45-49	0	\$ 0	1	\$ 27,000	1	\$ 27,000
50-54	0	0	1	30,120	1	30,120
55-59	17	1,014,026	5	152,596	22	1,166,622
60-64	59	2,544,193	12	339,289	71	2,883,482
65-69	59	3,347,652	13	405,476	72	3,753,128
70-74	59	3,840,311	7	228,886	66	4,069,197
75-79	54	3,927,912	23	723,127	77	4,651,039
80-84	34	2,406,252	35	1,121,080	69	3,527,332
85-89	29	1,927,464	21	581,085	50	2,508,549
90-94	10	647,544	18	550,660	28	1,198,204
95 and over	2	97,860	4	43,140	6	141,000
Totals	323	\$19,753,214	140	\$4,202,459	463	\$23,955,673

Average age at retirement                    65.2 years  
 Average age now                                74.9 years

Average Annual Benefits - Judicial Plan



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